

EDITION 2022

THE COMEBACK OF THE YEAR.

Hermle's Open House.

USER-BASED.

Five industry reports.

FROM THE COMPANY.

myHermle - the new customer portal.



Preface.

Dear business partners and customers, dear members of staff.

two years on from the start of the pandemic, Covid is still severely impacting our personal and professional lives. The current shortage of materials - combined with supply issues - is not making the situation any easier. Now you can see just how important the well-established and honest partnerships with our suppliers are. Overall, Hermle AG has faired well during these two years and been able to retain all its employees and offer all its former apprentices full-time jobs. After a somewhat sluggish start to 2021, Hermle AG recovered strongly over the course of the year, especially in the fourth quarter. It was already apparent at EMO MILANO that the trend was on a steep upward trajectory. This was also reflected in a solid result of around 74 million euros, with sales of a good 375 million euros and incoming orders of approx. 439 million euros. This means that our financial situation should remain robust in 2022 and we are well set up to deal with future challenges.

We are currently focusing intensively on the digitalisation and automation of our products. Numerous projects featuring a wide range of focal points have already been implemented above all with regard to the automation of our machining centres. This edition once again contains some interesting reports from our customers.

After two years without Hermle's Open House, we are now busy planning and organising the event that is so important for us and for you. We hope to attract visitors from far and wide and look forward to demonstrating a host of machining applications from various sectors.

Our Technology and Training Centre will again be brimming with all our machine models. And it goes without saying that all our automation solutions, such as the HS flex / HS flex heavy handling systems and the RS 05-2 and RS 1robot systems, will also be on show for all to savour. Further, guided tours of the plant are planned, allowing visitors to see the extensive changes to our production environment. Last but definitely not least, our traditional Swabian Maultaschen will be available to enjoy. We look forward to seeing you.

Kind regards,

Franz-Xaver Bernhard Director of Sales, Research and Development



THE COMEBACK OF THE YEAR.

Innovative machines at Hermle's Open House.

The tradition is finally set to return in 2022: Over 1,000 companies and a large number of visitors will be attending Hermle's Open House in Gosheim. As in previous years, original Swabian Maultaschen ensure you do not go hungry during the event and original Swabian machining centres and automation solutions guarantee all your technical needs are met.

Over the course of four days at the Hermle Technology and Training Centre, we shall be presenting our innovative range of machines, featuring more than 30 machining centres. This is where you can take a closer look at all the machines while also being given the chance to look behind the scenes.

Because, as before the pandemic, interesting presentations from the product environment and guided tours offer the ideal platform to get to know Hermle and its products even better.

REGISTRATION



Please register at:

You need a valid ticket for the Open House event.

www.hermle.de/openhouse2022 or simply scan the QR code

OPENING HOURS

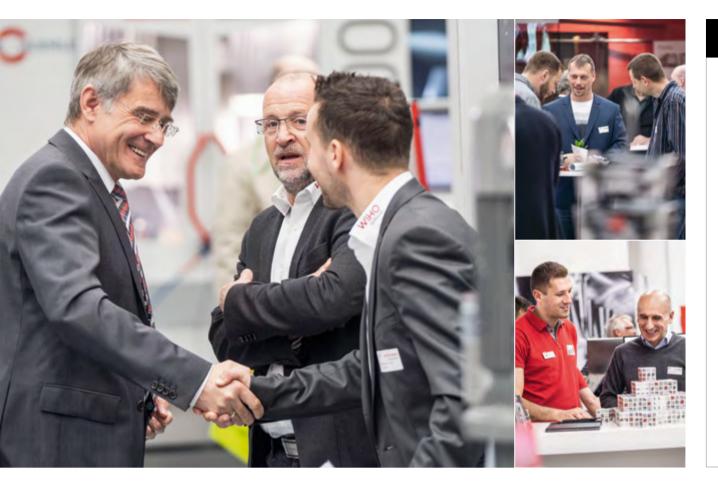
TUESDAY TO FRIDAY 26.-29.04.2022

9 am - 5 pm

OPEN HOUSE 2019 VIDEO REVIEW

www.hermle.de/review2019_en





HIGHLIGHTS

- Over 30 MACHINES in full production, demonstrating machining processes from various sectors
- Automated systems such as HS FLEX and HS FLEX HEAVY HANDLING SYSTEMS, the RS 1 and RS 05-2 ROBOT SYSTEMS
- Hermle **USER COLLEGE**
- **GENERATIVE MANUFACTURING** with Hermle's **MPA TECHNOLOGY**
- **DIGITAL MODULES** live demonstrations
- TALK FORUM with daily changing talks on TOOL
 TECHNOLOGY, CLAMPING TECHNOLOGY and CAD/CAM (partially also in English)

For daily updated details, please refer to our website www.hermle.de/openhouse2022

LIST OF MACHINING PARTNERS

Listed are all the partners who have been actively involved in machining at Hermle's Open Houses.

Tools









Ab Hoffmann Group











▲ MITSUBISHI MATERIALS











Clamping devices























CAD/CAM











SolidCAM
The Leaders in Integrated CAM







	HSS MILLING TOOLS	SAW HANDLE
Machine	C 12 U	C 12 U
Sector	Tool technology	Sport and leisure industry
Tools	GDE	Hoffman
Clamping devices	Hainbuch	Gressel
Software	Siemens NX	SolidCAM



	SHOEHORN	BONE PLATE	SOFT ICE CREAM
Machine	C 22 U	C 22 U	C 22 U
Sector	Model making	Medical technology	Sport and leisure industry
Tools	Emuge-Franken	H+B Mircotec	Mitsubishi
Clamping devices	Lang	Trigo	Hainbuch
Software	Open Mind	SolidCAM	 Tebis

	MOULD COMPONENT	STEERING KNUCKLE	MOULD INSERT
Machine	C 32 U	C 32 U	C 650 U
Sector	Tool and mould making	Production technology	Tool and mould making
Tools	Emuge-Franken	Mitsubishi	Moldino
Clamping devices	SMW Autoblok	Lang	FCS
Software	Open Mind	Tebis	Tebis

	CAR MIRROR	DRAGON	SPARTAN HELMET
Machine C 42 U	C 42 U	C 42 U	C 42 U
Sector	Model making	Model making	Model making
Tools	Ingersoll	Ceratizit	Pokolm/Fraisa/Seco
Clamping devices	Schunk	Schunk	Gressel
Software	Work NC	Open Mind	Siemens NX

	GRAPHITE ELECTRODE	FRANCIS TURBINE
	GRAPHITE ELECTRODE	FRANCIS TURBINE
Machine	C 42 U	C 42 U MT
Sector	Tool and mould making	Machine construction
Tools	Zecha	Sandvik
Clamping devices	Erowa	HWR
Software	Autodesk	Siemens NX / ENREC

	ENGINE CASE	ENGINE CASE	COMPRESSOR WHEEL
Machine	C 42 U MT	C 52 U MT	C 62 U MT
Sector	Aerospace	Aerospace	Machine construction
Tools	Emuge-Franken / Seco	WNT / Iscar	Special tools
Clamping devices	Schunk	Device	Schunk
Software	Open Mind	Siemens NX	ENREC

CAMPAIGN. 2020-2022



The Hermle advertising campaign has been gracing the pages of trade magazines worldwide for two years now. Powerful statements emphasise the various advantages of the machining centres. The best thing about this: The huge amount of positive feedback from both customers and partners. We are delighted with this.

















above from left to right. Geert Cox, managing director of Hermle Nederland B.V., Martijn van Eck, machine operator at Vermeulen Metaal, Johan Maessen, production manager at Vermeulen Metaal and Peter Vermeulen, managing director of Vermeulen Metaal B.V. right The C 650 U works up to six hours on this panel, which subsequently covers a control panel in a theatre.

Vermeulen Metaal B.V. shows how to make a successful entry into the world of machining sub-contracting. Within four years, the Dutch expert for sheet metal working invested in three 5-axis machining centres from Hermle. One of them had not yet actually been planned.

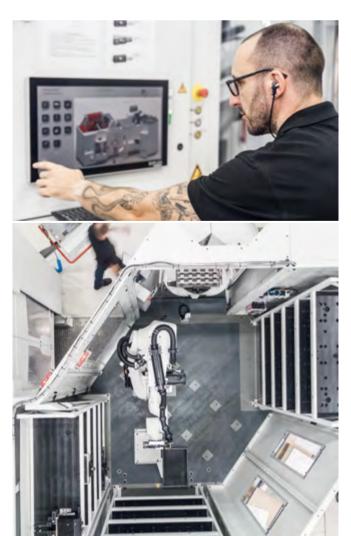


"If we hadn't started with the ideal solution, we would've been putting our good reputation at risk," explains Peter Vermeulen, managing director of Vermeulen Metaal B.V. based in the Dutch town of Nederweert. In 2016, he therefore invested directly in an automated 5-axis milling machine from Hermle's High Performance Line in order to enter into the world of machining subcontracting. Since 2008, Vermeulen has been earning a good reputation in the me-

THE FIRST STEPS FIVE YEARS AGO HAVE LONG SINCE TURNED INTO A CONTINUOUS OPERATION WITH MORE THAN 3,500 MILLING HOURS PER MONTH.

chanical engineering sector as a service provider for design, sheet metal working, welding and assembly. The move into machining was not actually planned – until 2016 when the company, which Vermeulen had previously used to produce milled parts, filed for insolvency. "We suddenly needed a machining subcontractor. In addition, due to the insolvency proceedings, we could no longer get hold of the orders which were still being processed," recalls Vermeulen.

He wanted to get out of this kind of dependency and decided to get into machining himself – by taking over the insolvent company. This meant he had got his foot in the door of the corresponding market. However, the existing machinery was far too outdated for successful entry. "If I want to get a foothold in machining, I need 5-axis technology," said Vermeulen with certainty. In Hermle he found the milling machine manufacturer which met his requirements for reliable systems, fast service and physical proximity. In 2017, Vermeulen ordered a C 42 U with a HS flex handling system and a large tool magazine. "A somewhat unorthodox entry", explains



top The SOFLEX software facilitates operation – of both the 5-axis machines and the adapted automation. bottom The C 400 U is automated with the RS 1 robot system – perfect for parts handling when machining standard products.

Geert Cox, managing director of Hermle Nederland B.V. "Most people invest in something smaller at first. But Peter had a certain vision and there was no other way of achieving it."

ONE BECAME THREE

Two more Hermle machines followed in 2020: The plan to purchase a C 400 U with robot automation had been in the pipeline for quite some time, but then Vermeulen ordered a C 650 U, almost out of the blue. "At some stage we were going to have to buy a 5-axis machine for very large workpieces anyway. A new customer order ensured that we ordered them much earlier than expected," explains Vermeulen. While the C 650 U has been in operation since October 2020, the C 400 U began running in December. The RS 1 robot system was added in February 2021. "The C 400 U is probably a bit too big for our standard parts. But we assumed from the outset that we would also produce larger workpieces or pallets on it," Vermeulen explains

The first steps five years ago have long since turned into a continuous operation with more than 3,500 milling hours per month. "Today, thanks to machining, we can offer our customers a comprehensive service – from design to the finished machine," says Vermeulen, explaining his vision. Now it is about making the most of the available capacities. "We'll have achieved this in about six months or in a year at the latest," he predicts.

GO TO ALL USER REPORTS







above from left to right Gregor Rofner, Maschinenfabrik Berthold Hermle AG Austria, with the team from faigle Industrieplast GmbH: Standing next to one of the machine operators is Peter Ritter, purchasing manager, Marco Blum, managing director, and Peter Mayr, team leader CNC machining. right Thermoplastic materials can be used to manufacture sliding guides which do not require separate lubrication.

faigle Industrieplast GmbH specialises in machining plastics and always aims to be at the cutting edge of technology in terms of complexity and precision. With the first machining centre from Hermle, the plastics expert entered 5-axis technology and automated production in 2020.



above The machine operator already knew Hermle from his previous employer accordingly, he quickly got to grips with the C 400 U.

Since 1990, faigle Industrieplast GmbH, a member of the faigle group of companies, has focused on the trade in semi-finished technical products – a lot of material science, little machining. This changed over time as customers requested prefabrication and whole finished parts. In 2013, the company officially entered subcontracting and has since been milling gearwheels, seal sets, switch bushings or entire assemblies to order. "With us, the customer gets everything from one source: From expertise on which material is ideal for its application to the ready-to-install part," says Peter Mayr, team leader in CNC machining at faigle Industrieplast GmbH.

In order to do justice to this expertise in practice and to maintain it, the company questioned the previous machining using only 3-axis machining centres. The machines could not do everything as required. Similarly, there was a lack of automation which would allow ghost shifts and therefore greater capacity with an existing workforce. "With the decision to invest in 5-axis technology, the wish to have a Hermle came up from the machining department," says Mayr. In addition to the precision of the machines, the fast and

competent service and the cooperative business relationship with Hermle, another aspect was decisive: The Gosheim-based company was able to offer faigle Industrieplast GmbH an automation solution which met the demands for flexibility and reliability.

"WITH US, THE CUSTOMER GETS EVERYTHING FROM ONE SOURCE." Peter Mayr

"5-axis technology is always a high investment which pays off more quickly thanks to automation and therefore the option for 24/7 production," explains Peter Ritter, Purchasing Manager at faigle Industrieplast GmbH. The company ordered a C 400 U, automated with the RS 2 robot system for automated pallet and parts handling. Both are operated with the SOFLEX software. "It controls not only when a particular workpiece goes under the spindle but also schedules tools required for follow-up orders, for example, and therefore prevents downtime," explains Mayr.





Components between 10 x 10 x 20 millimetres for vacuum technology and 250 x 250 x 400 millimetres for the semiconductor industry are currently being machined. The challenge here is the material: Plastic has low thermal conductivity, expands when exposed to moisture and can produce very long chips. Here, the correct milling strategy and sensible chip management are required. In addition, the surface plays a very important role – a requirement which the 5-axis machining centre from Hermle fulfils.

"With automation and the precise Hermle machine, we now have the quality and delivery time in our own hands and are no longer dependent on suppliers," Mayr sums up. In addition, faigle Industrieplast GmbH gains the capacity and flexibility it needs as a subcontractor to be able to process various orders reliably and at short notice.



left The top view of the robot cell shows where a second Hermle machine could be positioned should faigle Industrieplast GmbH want to expand its capacity. right The safe machining of plastics requires the right milling strategy and reliable machine bed flushing.



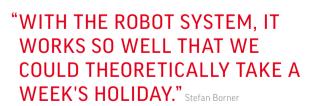
above from left to right Nuno Santos, managing director at RON AG, with the toolmaking crew Carlos Dias, Petra Wyss, Vignehwaran Kandiah, Nassif Bilal and Stefan Borner, tooling production manager at RON AG, and Christian Simon, area sales manager at Hermle (Schweiz) AG.

In order to be able to mill complex casting moulds for light alloy wheels around the clock, the RONAL GROUP invested in six 3-axis machining centres and a robot system from Hermle. The demands were high: The system is designed to reduce idle and re-machining times, create perfect surfaces and understand the milling programs of the previous machines.



It takes up to 20 hours of manual reworking before the negative of a wheel rim is ready for low-pressure casting. "Some of these are millimetre-small surfaces and geometries which have to be milled really cleanly and later finished by hand," says Stefan Borner, Tooling Production Manager at RON AG, tool manufacturer of the RONAL GROUP. Borner walks past a workplace where an employee is perfecting a brightly illuminated mould using a fine tool. The wheel rim is later cast in this so-called low-pressure casting mould and would also reflect any imprecision in the process.

His objective is the new system from Maschinenfabrik Berthold Hermle AG. It will replace several machining centres which, with 60,000 spindle hours, were "totally end of life and that was also



noticeable in the quality", as Borner adds. The demands on the new machine: perfect surfaces, reduced non-productive times and the adaptation of the old programs. The personnel effort should be as low as possible despite increased productivity – and therefore it was clear that automation was also a must. The RONAL GROUP considered several machine manufacturers and tested them: "We designed a milled part, wrote the programs for it and provided the tools. Every machine manufacturer in question was given this part so that the comparison was as equal as possible. After evaluating the results, Hermle was already pretty far ahead," says Borner.



above The milled surface is extremely important for the RONAL GROUP - the better it is, the less reworking is required.

TEST MORE THAN PASSED

What he particularly liked about the test milling in Gosheim was the expertise and initiative of the Hermle technicians. When requested, he left the original 3D data with the programmers. They rewrote the programs and achieved an "almost perfect" result. "And that, along with the automation from the same company, was ultimately the decisive factor in choosing this system," adds the graduate technician.

PERSISTENT FAST-SELLING ITEM

In the meantime, Borner has arrived at the new plant: six C 42 V, connected to an RS 3 L robot system on a linear axis. From a storage rack at one end of the plant, the robot supplies the six 3-axis milling centres. At the other end is the ergonomic setup station where an employee prepares the moulds which are 600 millimetres in diameter and weigh up to 240 kilograms. "The

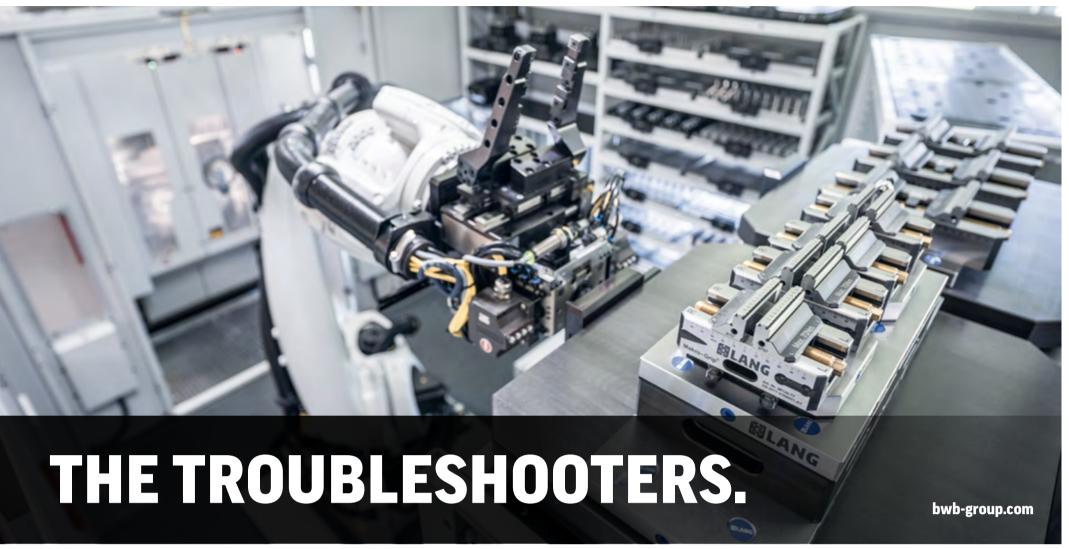
Hermle machines mean that we are also equipped for the future. Because wheel rims are becoming not only increasingly complex and filigree in geometry, but also larger. 24 inches now nothing stands in the way – from our point of view as toolmakers," says Borner.

A total of three employees have been trained to use the Hermle system. In the end, there will only be one person per shift operating it. This is made possible by the robot and the long runtime of the moulding tools. "With runtimes of up to 140 hours, it is extremely important for us to be able to reduce idle times and keep the machines running through the night and at weekends – including part changes. With the robot system, it works so well that we could theoretically take a week's holiday," confirms Borner half-seriously.



above The robot reaches each of the six C 42 V machining centres via a linear axis.





above The RS 2 robot system keeps the C 32 U running even at night and at weekends – thanks to automatic pallet and workpiece handling.

Coating specialist and chipper BWB-Betschart expanded its capacity and flexibility by investing in an automated C 32 U. Just how much this would pay off became apparent in January 2021: The workload increased by leaps and bounds, as did the demands for accuracy. Without the new Hermle system, the Swiss company would have had to cancel more than half of its orders at that time.



BWB-Betschart AG is a specialist in surface coating. The Swiss company entered the machining business around 20 years ago in response to demand for aluminium components for furniture construction. The decline in sales in the Swiss furniture industry brought upheaval: Instead of furniture manufacturers, BWB was approached by surface customers who had capacity bottlenecks in their own machining. Today, the furniture industry hardly plays a role – instead BWB is often a front runner, specialising in aluminium.



above The C 32 U together with the RS 2 robot system makes BWB-Betschart an even more attractive employer in the Swiss canton of Nidwalden.

Over time, the order workload in CNC machining outgrew the personnel capacity. "We had to work two to three shifts and use employees from other areas. However, for smaller quantities or new orders, we eventually ran out of qualified employees," explains Thomas Furger, head of CNC machining at BWB-Betschart. The remedy was an automated 5-axis machining centre from Hermle:

a C 32 U including the RS 2 robot system for automatic pallet and workpiece handling.

In addition to the intuitive control, reliability and high precision of the Hermle machine, the decisive factor was the uniform coordination of the overall solution. "We lacked the experience in

"AUTOMATION MEANS FLEXIBILITY." Thomas Furger

automation to bring two independent companies together and explain to both what we needed," clarifies Furger. "Here we have everything from one source. If something doesn't work, Hermle comes and solves the problem."



from left to right Tobias Halter and Ulrich Breitenberger, programmers, Christian Simon, area sales manager at Hermle (Schweiz) AG, and Thomas Furger, head of CNC machining at PWR Patenbart

THE LEAP IN UTILISATION

The C 32 U has been in operation since summer 2020. From January 2021, utilisation suddenly jumped to over 90 per cent. "Without this machine, we would have had to cancel well over half of the orders at that time. In addition, we required the high precision for some parts," emphasises Furger. Until May 2021, the Hermle milling centre had run on Saturdays, Sundays and public holidays; since then, the situation has eased so that BWB-Betschart has capacity again for new products. This gives Thomas Furger time to optimise the work processes with his employees. "Automation means flexibility so that we can redefine our process steps. Away from the stoic processing of orders, towards thinking in terms of assemblies," says Furger.

THE BENEFIT

One goal for Thomas Furger and his team is to minimise downtimes, achieve the expected precision and be able to react flexibly to repeat and individual orders. What it means to have a 5-axis machining centre from Gosheim in the machine park was only realised in the course of the year: "New customers came to us with orders which we would not have been able to accept in the past due to the required precision or lack of capacity. With automation, we are more competitive compared to nearby countries, and we are becoming more attractive as an employer – also because of the robot," says Furger. "I am sure that the investment will pay off in many ways."





from left to right Theo Zegers, managing director SAM Precision B.V., with the machine crew and Myrle Zegers, HR & organisation manager at SAM Precision B.V.

Managing director Theo Zegers describes the fact that subcontractor SAM Precision B.V. ordered a new 5-axis machining centre from Hermle B.V. at the beginning of 2021 as a stroke of luck. By letting the new C 32 U with RS 1 robot system autonomously work overnight and at weekends, he can respond more flexibly and quickly to the increasing demand for precision parts.

In the Netherlands, the semiconductor industry is booming and thus also filling the order books of SAM Precision B.V. Since its establishment in 1985, the subcontractor has developed into a specialist for the high-tech machining of precision components - especially those made of difficult-to-machine metals. The enormous growth in the industry means that the company must offer ever shorter machining times and greater flexibility. The parts are

THE ENORMOUS GROWTH IN THE INDUSTRY MEANS THAT THE COMPANY MUST OFFER EVER SHORTER MACHINING TIMES AND GREATER FLEXIBILITY.

complex, require precision and must be back at the customer's within two weeks - in Eindhoven, Belgium and Germany. "If we deliver good results, we get follow-up orders," is how company founder Theo Zegers sums it up. In order not to jeopardise the delivery reliability, he turned to Hermle: "With 28 employees, we are a very small company. We simply don't have the staff for a multi-shift operation. In order to still be productive even during ghost shifts, I wanted to invest in an automated 5-axis machining centre."

FLEXIBLE CAPACITY

He decided on a C 32 U, automated with the RS 1 robot system. "The complete solution combines parts handling with a universal die and an automatically clamping vice. This allows us to produce different components automatically, regardless of their dimensions," explains Zegers. At the time of the order, the Dutchman



above The universal die adapts flexibly to various geometries

C 32 U as a stroke of luck.



ible capacity of the C 32 U. Only one month after he signed the contract, the order intake increased enormously. The entrepreneur describes the fact that he now has more capacity with the

Since July 2021, the new machining centre of the High Performance Line has been located at SAM Precision alongside eleven other Hermle machines. "All machining centres run reliably and with precision and are very user-friendly at the same time," praises Zegers and adds: "The C 32 U with automation also machines small standard parts quickly and efficiently and has significantly expanded our capacity without us having to hire new skilled workers." Instead of the previous ten parts per day, the subcontractor can now produce a complete repeat order of up to 70 pieces overnight using the new system. Another advantage for him is that, thanks to the uniform control, he can deploy his employees flexibly on every machine and absorb bottlenecks during



above Hermle's technicians are quickly on site - as here for training on the C 32 U.

did not yet know that he would more than urgently need the flex- holiday or sick periods. In addition, the Hermle name attracts motivated applicants as well as new and exciting projects.

> In the meantime the C 32 U, including the RS 1 robot system, is well linked to the company's digital infrastructure which is also new. Zeger's employees are on standby on a rotating basis and are on hand should the machine report a fault. "Usually it is then a trivial problem, such as chips blocking the door. That is quickly solved," the Managing Director reports and adds: "We are very happy with our new investment. We now have a good basis to keep up with our customers."

COMPANY.



myHermle. THE NEW CUSTOMER PORTAL.

myHermle offers a wide range of benefits to our customers in German-speaking countries. Since our new customer portal is always available, clearly structured and is the permanent connection to your Hermle machining centres. Will also be available in English language soon.

How it works: Simply log in with your personal access directly via the browser - using a PC, tablet or smartphone. All the machines and associated service messages are then available to

Request:

Submit your service request online.

Speed:

Formalised messages with category and prioritisation information enable even faster service

Transparency:

All machine and service messages in a shift-spanning overview.

History:

Transparent overview of the entire message history.

Flexibility:

Log in at any time and from anywhere.





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