# INSIGHTS

ISSUE **1** 2017 TICE CONTRACTOR OPEN HOUSE 2017 Swabian "Maultaschen" at the Hermle AG trade meeting.

# INTUITIVE THANKS TO HS FLEX

An automation solution providing cost-effective entry into machining centre automation.

# EXPERIENCE SWABIAN SPECIALITIES IN A NEW LOOK

Discover the digital world of Hermle machining centres.



# Preface

Dear business partners and customers, colleagues and employees,

well, 2016 is over and done with and, as expected, it turned out to be a great year. The start to 2017 has also been successful despite the political and economic uncertainty that exists in many areas. We have set ourselves a number of goals this year 2017 in order to sustain this level of market success.

Our revamped website, for instance, is designed to deliver greater digitisation and present our products and company more transparently to a global market. Be inspired and also visit us at www.hermle.de.

The upcoming Open House event (26 - 29 April 2017), once again featuring a compelling array of highlights, is already creating quite a buzz.

We are obviously delighted to be able to present the newly developed HS flex handling system, which can be used to flexibly automate several of our machine models. Live milling and turning demonstrations at over 30 variously configured machine models reveal the high performance qualities of our products. In addition, interesting technical presentations, guided factory tours and over 50 additional exhibitors guarantee an exciting and fascinating event programme. Specialist staff from the Service, Automation, Training and Generative Manufacturing departments, will be on hand to provide relevant information and advice.

So, come and see our products, meet the entire Hermle team and discover a company with the experience and expertise to meet all your needs and requirements.

And to ensure you don't go hungry, we'll be serving some great varieties of our traditional Swabian "Maultaschen" (Swabian ravioli).

You are cordially invited to visit us at the Open House - at which we look forward to interesting discussions.

Kind regards,



Franz-Xaver Bernhard Director of Sales, Research and Development

### HERMLE AG

# OPEN HOUSE

GOSHEIM | 26.04. - 29.04.2017

# Real classics: "Maultaschen" and our trade meeting.

From 26 - 29 April 2017, well over 1000 companies and numerous visitors from across the globe are once again expected in Gosheim, where they can enjoy the original Swabian "Maultaschen".

A treat of the technical variety awaits visitors in the form of the machine models from the Performance-Line and High-Performance-Line series, which illustrate the output spectrum of Hermle AG in a wide range of configurations. Some models are of course equipped with cutting-edge automation tools, including the new HS flex handling system, various pallet changers and robot systems.

We convert a complete production hall into a small trade fair, accommodating over 50 exhibitors from the sectors of clamping, software and hardware technology. Thanks to a varying programme of specialist lectures each day, visitors will also be offered concise information on all aspects of economical machining.

### REGISTRATION



Please register at: hermle.de/OpenHouse2017

or simply scan the QR code

### OPENING HOURS

**WEDNESDAY - FRIDAY** 9:00 am - 5:00 pm **SATURDAY** 

9:00 am - 1:00 pm

You will only be able to access the Open House event with a valid ticket!

### **HS flex** AUTOMATION SOLUTION



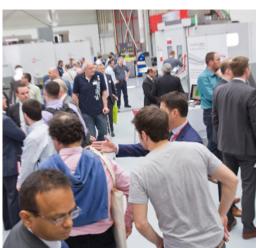






# COMPANY.





### **HIGHLIGHTS**

- More than 20 machine models of the **High-Performance-Line** a benchmark in five-axis technology
- Several machine models of the Performance-Line, which only rank below the High-End machining centres
  of the High-Performance-Line in terms of dynamics and equipment
- Over **20 machines, some automated,** in our Technology and Training Centre
- Special show on clamping device technology, software and hardware, with over 50 well-known exhibitors
- Hermle expert forum with a wide range of specialist lectures on state-of-the-art machining
- Hermle Maschinenbau GmbH with generatively manufactured components
- **Hermle user training** with tips and tricks for optimum milling and turning
- Service expertise live a presentation and demonstration of our services
- The Hermle Apprentice department with its own stand and presentation of Hermle's training strategy
- **Guided tours** of the company

### TECHNICAL PRESENTATIONS

### **WEDNESDAY 26/04/2017**

10:00 am - 10:20 am ALBRECHT Präzisions Spannfutter

Greater process efficiency, longer service lives and improved machining capabilities due to

new tool clamping technology

10.30 am - 10.50 am LANG Technik GmbH

Workpiece clamping and automation

11:00 am - 11:20 am INFORM GmbH

Agile production optimisation in response to increasing complexity

11:30 am - 11:50 am accurapuls GmbH / DIMAB Spezialschweißarbeiten gmbH & Co. KG

Digitization in tool making, experience reports from metal forming

### **THURSDAY 27/04/2017**

10:00 am - 10:20 am FAHRION

Pull-out protection for high-performance tools

10:30 am - 10:50 am GRESSEL AG Spanntechnik

Application-based examples of clamping technology to increase machine runtime

11:00 am - 11:20 am OPEN MIND Technologies AG

hyperMILL VIRTUAL machining of OPEN MIND

11:30 am - 11:50 am HAINBUCH

Clever manufacturing - fast set-up, resources for new ideas

### FRIDAY 28/04/2017

10:00 am - 10:20 am Haimer GmbH

New added value – optimised tool management from a single source

10:30 am - 10:50 am SCHUNK GmbH & Co. KG

Using direct workpiece clamping to machine workpieces

11:00 am - 11:20 am CGTech Deutschland GmbH (Vericut)

More productive manufacturing without manual prove-outs at the machine

11:30 am - 11:50 am SMW-AUTOBLOK

Clamping technology Industry 4.0

#### **CLAMPING TECHNOLOGY**

ALBRECHT Präzisions Spannfutter

ALLMATIC-Jakob Spannsysteme

AMF ANDREAS MAIER GmbH & Co. KG

BIG KAISER

Emuge Franken

EROWA

**FAHRION** 

GRESSEL AG Spanntechnik

Haimer GmbH

HAINBUCH

Helmut Diebold GmbH & Co. KG

Hemo Werkzeugba

Hoffmann-Group

HWR Spanntechnik

Kesel - Werkzeugmaschinen/Spannsystem

LANG Technik Gmbł

Lenzkes Spanntechnik GmbH

NT TOOL

PAROTEC AG / Partool GmbH & Co. KG

RÖHM GmbH

Schrenk GmbH - Spann- und Zerspantechnik

SCHUNK GmbH & Co. KG

SMW-AUTOBLOK

SPREITZER - Spannen | Prüfen |

Sondervorrichtungen

Vischer & Bolli Werkzeug- und

Sparificecrifik diffur

Woninaupter GmbH

### SOFTWARE

Autodesk

Camtek GmbH

CGTech Deutschland GmbH (VERICUT)

CIMCO A/S

Concepts NREC

INFORM GmbH

JANUS Engineering AG & A+B Solutions Gm

OPEN MIND Technologies AG

SOFLEX Fertigungssteuerungs-GmbH

SolidCAM GmbH / Solidpro

Tebis AC

unicam Software GmbH - CAD/CAM | Roboter-Offline-Programmierung | Simulation

Variable Carlos Carlos

vero sortware Gillon

### HARDWARE

accurapuls GmbH

Blum-Novotest

Carl Zeiss Industrie

DR. JOHANNES HEIDENHAIN GmbH

F Zoller GmbH & Co. KG

Hermle Maschinenhau

Hermle Maschinenbau GmbH

KELCH

m&h Inprocess Messtechnik GmbH

Renishaw GmbH

Siemens AG

StaabTe

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# PRODUCTS.

# HS flex

## INTUITIVE HANDLING

The new HS flex handling system is an automation solution providing cost-effective entry into machining centre automation

The HS flex handling system is an automation solution providing cost-effective entry into machining centre automation. The front-sided adaptation ensures a space-saving layout with direct connection to the machining centre. The large intermediate space provides direct access to the working area for manual operator activities.

In automatic mode, a double door blocks operator access; and in setup mode, access to the handling system. The customisable pallet

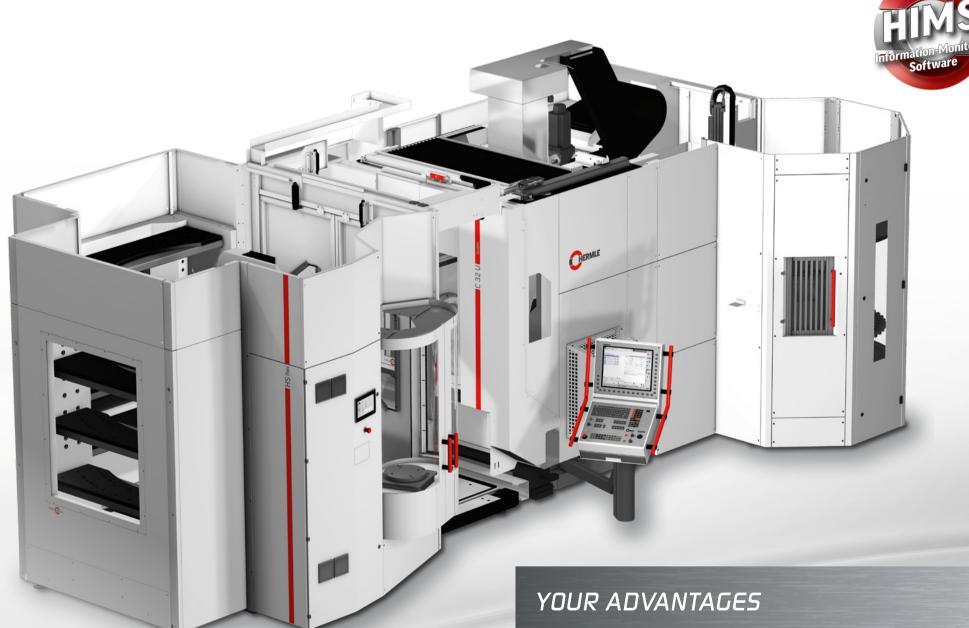
storage modul offers numerous combination options for a large range of parts. A second pallet storage modul can be additionally integrated in the handling system, thus enhancing the storage of parts significantly.

The Hermle Automation-Control-System (HACS), which is operated via an integrated touch panel, provides an ideal platform for intuitive operation and control of the handling system.







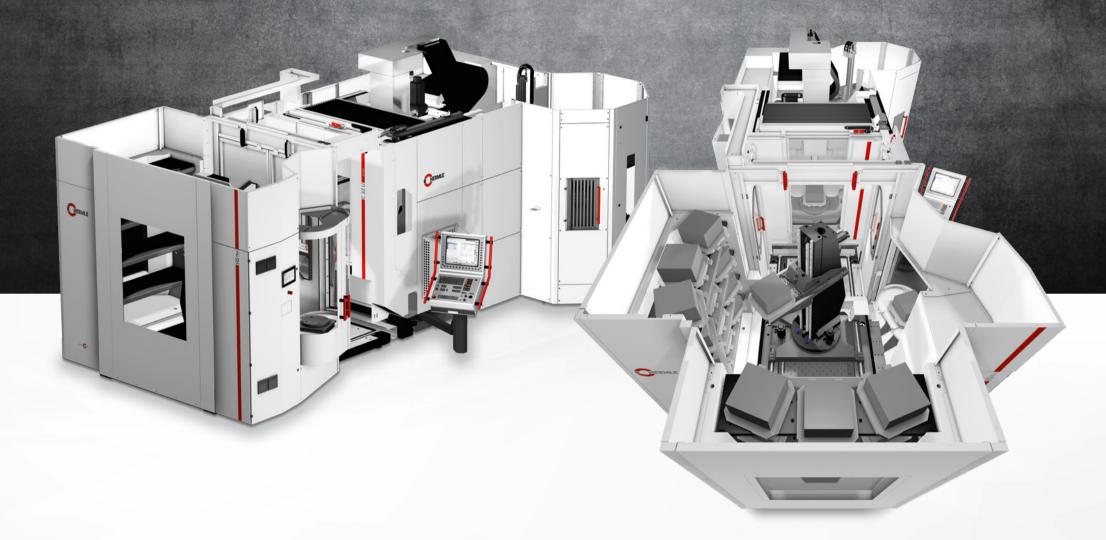


HS flex with two palett storage modul and setup station, adaptet on a machining centre C 32 U  $\,$ 

- Automation solution for enhanced storage of pallets
- Optimised, operator-friendly access to the machining centre
- Large configurable pallet storage modul
- Additional, configurable pallet storage modul
- Lateral setup station (optionally rotatable)
- Touch pad with integrated operating software HACS
- No floor anchorage required
- Easy and quick installation and commissioning

# PRODUCTS.

# **HS flex** AUTOMATION SOLUTION



### TECHNICAL DATA HS flex

| Pallet storage modul (modul 1 or modul 2) | 20x pallet storage | 12x pallet storage | 9x pallet storage | 8x pallet storage | 6x pallet storage |
|---|--------------------|--------------------|-------------------|-------------------|-------------------|
|   | - 1                |                    | 2 11 12           |                   |                   |
| Storage capacity per modul                | 20 units           | 12 units           | 9 units           | 8 units           | 6 units           |
| Pallet dimensions                         | 240 x 320 mm       | 240 x 320 mm       | 240 x 320 mm      | 240 x 320 mm      | 240 x 320 mm      |
|   | -                  | 320 x 320 mm       | 320 x 320 mm      | 320 x 320 mm      | 320 x 320 mm      |
|   | -                  | 400 x 320 mm       | 400 x 320 mm      | 400 x 320 mm      | 400 x 320 mm      |
|   |                    | 400 x 400 mm       | 400 x 400 mm      | 400 x 400 mm      | 400 x 400 mm      |
|   | -                  | -                  |                   | 500 x 400 mm      | 500 x 400 mm      |
| Max. workpiece height*                    |                    |                    |                   |                   |                   |
| Interfacial storage level                 | 260 mm             | 260 mm             | 485 mm            | 260 mm            | 485 mm            |
| Sovereign storage level                   | 485 mm             | 625 mm             | 625 mm            | 625 mm            | 625 mm            |
| Max. transport weight** (incl. Pallet)    |                    |                    |                   |                   |                   |
| Single cone                               | 300 kg             | 300 kg             | 300 kg            | 300 kg            | -                 |
| Double cone                               | -                  | 450 kg             | 450 kg            | 450 kg            | 450 kg            |
| Pallet weight min.                        | 20 kg              |                    |                   |                   |                   |
| Pallet change time                        | 50 s               |                    |                   |                   |                   |

<sup>\*</sup> Please note the max workable workpiece height \*\* Please note the max permitted table load

# COMPANY.

Hermle AG

Machining centre

Services

Careers

Media

Investor Relations

EN | Q





Discover the digital world of Hermle machining centres on

our new website which goes live on 20 March 2017.

If you speak to those with a love of good food about Swabian specialities, the conversation will usually turn to the famous culinary delight of "Maultaschen". Speak, on the other hand, to engineers about Swabian specialities and the conversation will definitely be about the excellent machines from Hermle AG based in Gosheim. And it's well worth the effort. Since Hermle is now looking twice as nice.

On the one hand, of course at its ever-popular Open House event from 26 to 29 April 2017. And, on the other hand, on its revamped website from 20 March 2017. Both are definitely well worth a visit. At www.hermle.de our integrated campaign "7 reasons for a Hermle" will guide you through the digital world of Hermle machining centres. Discover the reasons right here. Simply visit our website to see the unique way we have presented these topics.

### PROVEN QUALITY - ALSO IMPRESSIVE IN DIGITAL FORM

Hermle has always stood for typical Swabian quality. Anyone who has ever used one of our machines will realise there are more than enough reasons to purchase a new Hermle. Mill it and turn it as much as you want, the following seven reasons will convince the anybody of Hermle's efficacy: precision, reliability, long-term accuracy, five-axis benchmark, service competence, fairness and location dedication.

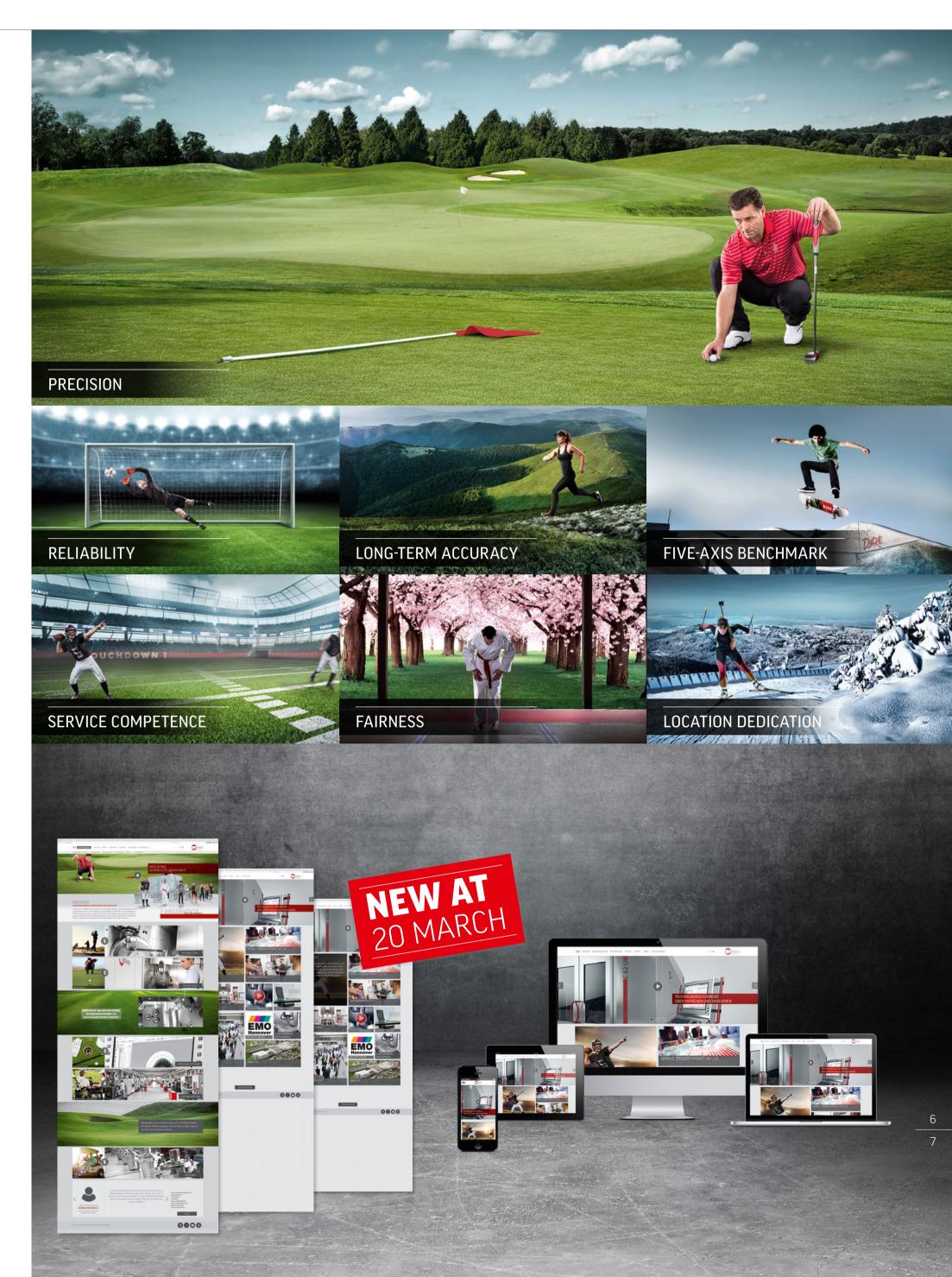
Discover online how these talents and values will help you stay ahead of your competitors. In theory, the performance provided by Hermle machining centres sounds very convincing. In practice, they are possibly the best machines in the world.

### 7 REASONS FOR A HERMLE

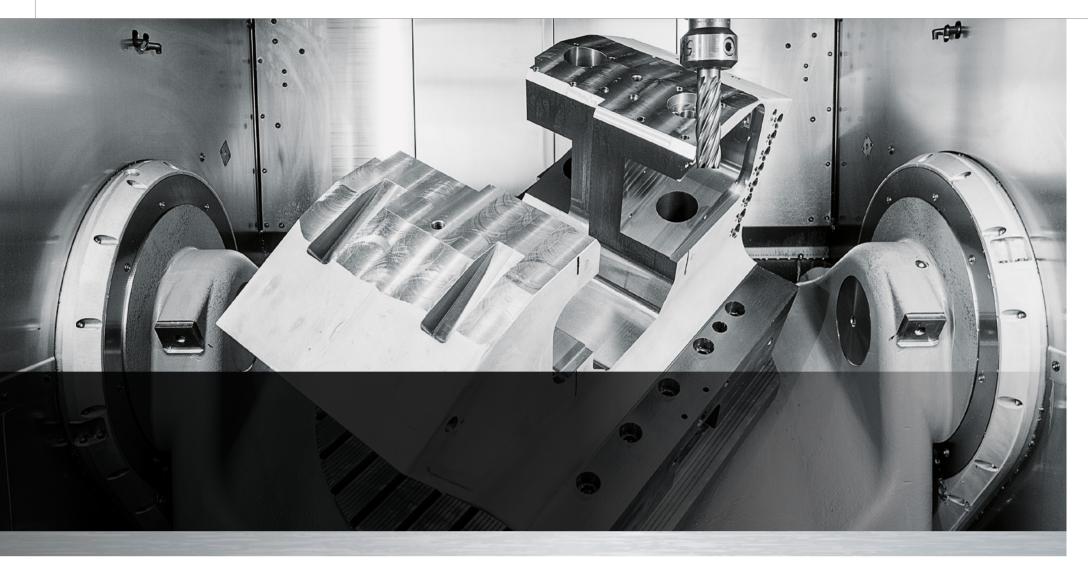
- Precision
- Reliability
- Long-term accuracy
- Five-axis benchmark
- Service competence
- Fairness
- Location dedication



# COMPANY.



# USERS.



The large working area of a C 42 U machining centre featuring an swivelling rotary table with a base body that is fully machined in a single fixing



Technology company HK Präzisionstechnik GmbH is increasingly focused on the use of five-axis machining centres from Hermle in its component manufacture for workpiece clamping systems and for tool and mould making

When referred to in insider circles, the name of Heckler & Koch still stands for quality from Oberndorf in the Black Forest region of Germany. The company's expertise and know-how is of course firmly founded on its many years' experience in the industrial manufacture of precision parts. Since 1993, this level of expertise and manufacturing know-how has been deployed solely for the benefit of the civilian sector.

# SPECIALITY: HIGH-END CLAMPING SOLUTIONS FOR LARGE SCALE AND MASS PRODUCTION

Having taken on highly qualified staff and acquired machinery and equipment from H&K's tool making operation, the workpiece clamping and jigs and fixtures business was ideally placed to enjoy prosperous growth, and is today a go-to address for high-end workpiece clamps and complete clamping system solutions used in the machining of automotive components. The fact that 10 of the 45 employees work in the Design department is in itself a clear indication that HK Präzisionstechnik is very much focused on custom clamping solutions rather than just standard clamp fixtures.

## LAUNCH OF HIGH-LEVEL, PRECISION-CONTROLLED FIVE-AXIS MACHINING: HERMLE C 42 U

Following a thorough analysis of its customers' needs and based

on the current and expected range of components to be machined, Hermle-Leibinger Systemtechnik GmbH (HLS) recommended that HK should switch to five-axis

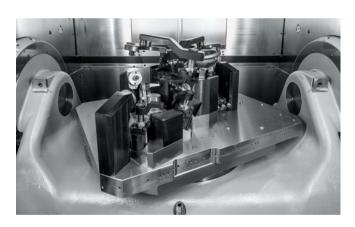
(From left to right) Horst Scheidt, partner in HK Präzisionstechnik GmbH and head of R&D, Frank Keller from Hermle-Leibinger Systemtechnik GmbH project sales, HK Präzisionstechnik GmbH production manager Wolfgang Cmelik and machine operator Christian Wetzel, in front of a Hermle C 42 U high-performance five-axis CNC machining centre

complete/simultaneous machining with a C 42 U machining centre from Hermle. Horst Scheidt comments on the switch to five-axis machining: "We were already running high-performance precision machinery, but we often had to make complex arrangements for special machining applications or to obtain a truly precise finish. The need to outsource meant that time was frequently lost, quality was sometimes not entirely satisfactory, and we had to reconfigure clamping systems, switch machines, or make other adjustments. Today, this is a thing of the past, as we fully produce all the relevant parts in one or two fixings and to the highest quality in a single operation."

## FROM INTERDISCIPLINARY PRODUCTION TO STAND-ALONE COMPLETE MACHINING

The rapid and pronounced success achieved by switching to five-axis complete machining made the HK management "hungry for more" – especially as the need arose for additional capacity. Consequently, the decision to invest in a second Hermle C 42 U high-performance five-axis CNC machining centre was taken soon after acquiring the first one. Xaver Mayer, managing partner, sums up: "It has all been well worthwhile, and to be honest we should have done it earlier. The fact that the swarf box was full three days after starting five-axis machining was a major positive surprise to us, because it was





A complete hydraulic clamping device for the complete machining of engine components; adapted precisely to a Hermle C 42 U machining centre and delivered by HLS as a complete turnkey project to an automotive component supplier

something we weren't used to. We also very much like the simple programming and easy operator control. And the rapid, expert service backup from Hermle is a major plus. The Hermle machining centres now run 12 hours a day, literally in direct dialogue with the Design department, saving us a great deal of time and helping us avoid downtimes. We mostly run SE (Simultaneous Engineering) projects, initially working to only basic outline requirements, which are subject to change from start to finish. The faster our design and production systems are able to respond to those changing requirements, the less corrective action and cost will be incurred, and the fewer delays there will be. The two Hermle machining centres have been a major advance for us in that respect, and we have been able to significantly improve our competitiveness."

# USERS.



From left to right: Sascha Riesinger, sales manager, graduate in business administration (FH) Jürgen Stickel, managing director, and Bernd Zepf, production manager, all from Fetzer Medical GmbH & Co. KG in Tuttlingen



Fetzer Medical GmbH & Co. KG employs tailored yet universally flexible Hermle machining centres in its role as an OEM partner manufacturing a wide range of surgical instruments and medical technology components to customer specifications

"From the idea to the finished product, or: All in one inclusive Labeling!" – that is the slogan of Fetzer Medical GmbH & CO. KG. In order to build further on the family business' long-standing tradition in the development and manufacture of surgical instruments and medical devices, the owner took the decision to expand, employing its ideal combination of mechanical skills in the production of surgical instruments with new technologies in the highly demanding medical technology sector to offer an industrial portfolio.

### FLEXIBLE PRODUCTION OF SURGICAL INSTRUMENTS AND MORE TO ORDER

Fetzer Medical processes all relevant materials, including titanium, into a range of products from prototypes and single parts to mass-produced components and complete devices, all supplied to customers in ready-to-use form. Among the portfolio of machinery operated by the company's current workforce of 45 highly skilled staff are high-performance five-axis machining centres, nine-axis turning/milling centres, five-axis grinding centres and CNC lathes. Most of the work (accounting for 75%) is complex milling/drilling. From the very beginning the business has employed – and now more than ever relies on – a range of high-performance five-axis CNC machining centres from Maschinenfabrik Berthold Hermle AG. Fetzer Medical production manager Bernd Zepf comments on the

choice of Hermle machining centres: "The Hermle machine concept featuring three axes in the tool and two in the workpiece is ideal for five-axis complete machining in one or two clamp fixings."

# FROM MANUAL SINGLE PART FABRICATION TO INDUSTRIAL PRODUCTION

Two C 22 U high-performance five-axis CNC machining centres are equipped with 11-pallet changers/storages of type PW 150, and are used for the flexible production of a wide range of

components in lots up to 300 pieces. Another high-performance five-axis CNC machining centre of type C 12 U is combined with an RS 05 robot cell for the manufacture of a modular-design scissors range. Since all the installed Hermle machining centres are essentially based on the same concept and on the same control and operating philosophy, operators are quickly familiarised with run-

ning the various machines, and staff confidence and acceptance of the machinery is enhanced as a result. That is advantageous, firstly, in terms of the machines' productivity. They are run basically in single-shift mode under operator control, though the aforementioned machining centres with the pallets and robot system do of course run overnight and at weekends for automated machine loading.





Left: The working area of the five-axis C 22 U machining centre with the swivelling rotary table on which a multiple clamping system is installed. Right: The line of five-axis machining centres: the C 22 U featuring PW 150, the C 12 U with RS 05, and the C 40 U in the new production centre at Fetzer Medical GmbH & Co. KG

### VALIDATED AND CERTIFIED: PRODUCTION PROCESSES ON HERMLE MACHINING CENTRES

In detailing the benefits of high-end manufacturing on Hermle machining centres, Fetzer Medical sales manager Sascha Riesinger adds to those "hard facts" a number of "soft facts" which are key factors in the highly demanding production of simple surgical instruments through to complex medical devices: "All our production and quality assurance equipment has to be validated and certified in accordance with the requirements of the relevant EU and US regulatory bodies. With regard to US certification in particular, it is a major advantage that many American medical technology companies also use validated Hermle machining centres in their production."



USERS.

Read the complete article at www.hermle.de in the Media/User reports section.



The working area of the C 30 U equipped with the swivelling rotary table. Maximum utilisation traverse/working range and the collision circle free swivel/rotation range enable the complete machining of large workpieces

Czech company AXIS TECH s. r. o. is riding on a wave of sustained success thanks to its firm focus on the possibilities of five-axis/five-side complete/simultaneous machining using high-performance CNC machining centres from Hermle



Established in 2009, and having progressed in just a few years from a standard supplier of mechanical parts to a widely respected high-end machining service provider for complex

precision components, the Czech company AXIS TECH s. r. o. has a short yet highly successful history behind it. CTO Petr Michalek and CEO Petr Stencel turned their vision into a reality by incorporating their over 15 years' experience in NC and CNC machining into their own business, AXIS TECH s. r. o.

### A GROUND-BREAKING INVESTMENT IN FIVE-AXIS HIGH TECH

In keeping with the strategy – and of course in line with customer demands for high-precision complete machining of complex, increasingly functionally integrated, components – the milling and complete machining machinery portfolio today comprises a mix of C-series machining centres: C 40 U, C 30 U, C 42 U, C 50 U MT, C 400 and C 22 U. There are already three medium-sized C 30 U machining centres in operation, providing adequate capacity to serve that segment. With its mix incorporating almost all sizes and capacities of the C-series, AXIS TECH s. r. o. covers a wide range of potential component sizes, and with the C 50 U MT (with turning functionality) it is also able to manufacture components in specific sizes and weights in a single fixing by

milling and turning.

# MACHINING CENTRE MIX OPTIMALLY MEETING CUSTOMERS' NEEDS

Martin Skukalek from Hermle's Ceska Republika comments: "Implementing the same machine design and operator control concept across all sizes, together with unified control systems, offers the major advantage that all staff trained on the machines can work very flexibly on any machine." The staff often don't even know which machine they are going to be operating when they come to work at the start of a shift. This means, depending on capacity requirements and the scope of complete machining work, it is possible to run a single order on one or more machines, thereby greatly reducing throughput times and so enabling very fast delivery to the customer. At AXIS TECH all the machines are employed in three-shift operation with operators, and, depending on machining complexity and workpiece runtime, sometimes with multiple-machine operation by a single operator.

From right to left: CEO Petr Stencel and CTO Petr Michalek, both from AXIS TECH s. r. o., and Hermle Ceska Republika field sales executive Martin Skukalek

### www.axistech.cz/de

### **DATES** OPEN HOUSE HERMLE AG, GOSHEIM 26/04 - 29/04/2017 METALLOOBRABOTKA, RUSSIA 15/05 - 19/05/2017 MOULDINGEXPO, STUTTGART 30/05 - 02/06/2017 MACHTOOL, POLAND 06/06 - 09/06/2017 RAPIDTECH, ERFURT 19/06 - 22/06/2017 PARIS AIR SHOW, FRANCE 19/06 - 25/06/2017 GENERAL MEETING, GOSHEIM 05/07/2017 EMO, HANOVER

#### GERMANY

18/09 - 23/09/2017

| GERMANT                                       |  |
|---|--|
| HERMLE<br>Hermile + Partner<br>Wertriebs GmbH | Hermle + Partner Vertriebs GmbH<br>Gosheim, Germany<br>www.hermle.de                             |
| Hermis-Leibinger<br>Systemachnik (imbil       | Hermle-Leibinger Systemtechnik GmbH<br>Gosheim, Germany<br>www.hermle.de                         |
| HERMLE<br>Maschinenbus GmbH                   | Hermle Maschinenbau GmbH<br>Ottobrunn, Germany<br>www.hermle-generativ-fertigen.de               |
| HERMLE  | Hermle Technology and Training Centre<br>in Kassel-Lohfelden awt.kassel@hermle.<br>www.hermle.de |

#### BELGIUM

|          | nerrile beigium       |
|----------|-----------------------|
| IERMLE   | www.hermle-nederland. |
| Belgique |                       |
|          |                       |

### BULGARIA

HERMLE

| CHINA  |   |
|--------|---|
| HERMLE | Hermle China<br>Shanghai Representative Office<br>and Beijing Representative Office |

Hermle Southeast Europe

Sofia, Bulgaria

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| NETHERLANDS             |   |  |
|                         | Hermle Nederland B.V  |  |

### AUSTRIA

HERMLE

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|--------|-----------------------|
| HERMLE | Warsaw branch, Poland |
| Polska | www.hermle.pl         |

### RUSSIA

|            | Hermle Vostok 000    |
|------------|----------------------|
| HERMLE     | Moscow, Russia       |
| ООО Восток | www.hermle-vostok.ru |
|            |                      |

### SWITZERLAND

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|------------------------|---|
| _                      | 11 1 140ME AC   |

Neuhausen am Rheinfall, Switzerland

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|---------------------------|--|--|
| USA                       |  |  |
|                           | Hermle Machine Co. LLC   |  |

Franklin/WI, USA www.hermlemachine.com

#### HERMLE Machine Company

Layou User o

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