

SPEEDfactor

CHIRON Group Customer Magazine | 1/2017 edition

WELCOME TO VERTICAL

INNOVATION

Milling | Turning | Automation | Turnkey

**open
house**
2017

March 29th – 31st,
Tuttlingen, Germany,
from 9:00am until 5:00pm

CHIRON Group

chiron

STAMA

SCHERER
FEINBAU

CMS

Innovations and digitization in focus

Dear Readers,

The year 2016, with its political and economic uncertainties, was challenging for all of us. The CHIRON Group mastered these challenges well and finished the business year 2016 with a slight sales increase. CHIRON Werke even reported a record order intake. We want to thank you, our business partners, for your trust!

Our newly developed digitization concept reflects precisely this requirement-oriented approach: With SmartLine, we rely on relevant data and not on big data. With interesting lectures and presentations on the machine, we will be introducing to you our RemoteLine along with the DataLine and ProcessLine modules at the OPEN HOUSE. Other modules, such as one for "condition-based maintenance", are already under development.

Our new machine types and software systems are oriented towards our core competencies, which you have appreciated for many years: multi-spindle 5-axis machining, highest dynamics and mature process development in turn-key projects ensure you high productivity rates concerning your capital investment, your employees as well as your production space.

You can see this for yourself at our OPEN HOUSE, where we would like to present to you personally our this year's worldwide innovations. With the motto "Welcome to Vertical Innovation" we present our new developments FZ08 FX PRECISION+ and DZ08 FX PRECISION+. They set new standards in single and double-spindle 5-axis machining.

One highlight will be the lecture by Mr. Klaus Helmrich, Member of the Management Board of Siemens AG, on the topic of "Digitization of Industry – Developing Fully New Business Models".

Our 35 co-exhibitors will be presenting complementary products and services for metal processing. The band "The Rehats" will provide entertainment at our already traditional After-work User's Meeting on Friday. Food and beverages will certainly be provided.

We are looking forward to your visit!



The CHIRON Group Management:
Wolfgang Ehrk, Dr. Markus Flik and Dr. Achim Degner

Our investments in our processes have paid off. We have achieved top delivery reliability at the CHIRON Werke, increased productivity at STAMA and improved project control at SCHERER Feinbau.

As a company group, we have grown together even more closely. By formulating a mission statement, common values and leadership principles for the entire CHIRON Group, we have created the basis for an even smoother cooperation.

Our machine tool brands CHIRON, STAMA and SCHERER work closely together in joint platform projects that will lead to a series of innovative machine types over the next years. In the extensive discussions we have had with you, our customers, we have identified your needs and aligned our development goals with them.

Dr. Markus Flik

Dr. Achim Degner

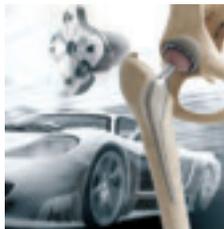
Wolfgang Ehrk

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impulse | 4 - 5 |

- Medical Technology versus Automotive Industry
- Trends in Machining



inside | 6 - 7 |

- Interview with Wolfgang Ehrk
- CHIRON makes winners – the best CNC milling technicians of Germany come from Tuttlingen



open house 2017 | 8 - 21 |

- SmartLine: Digitization with a sense of proportion
- **NEW:** RemoteLine
- DataLine: Awarded with the Innovation Award
- **PREMIERE:** DZ08 FX PRECISION+
For greater productivity and precision
- **PREMIERE:** FZ08 FX PRECISION+
Seconds Ahead in the smallest possible space
- Highly productive CHIRON & SCHERER complete system
- CMS-Retrofit direct from the manufacturer
- STAMA 38 HEAVY DUTY
- STAMA MT 724 2C
a/no question of the piece umber
- Ahead through knowledge
Programme of events
- Partner exhibition

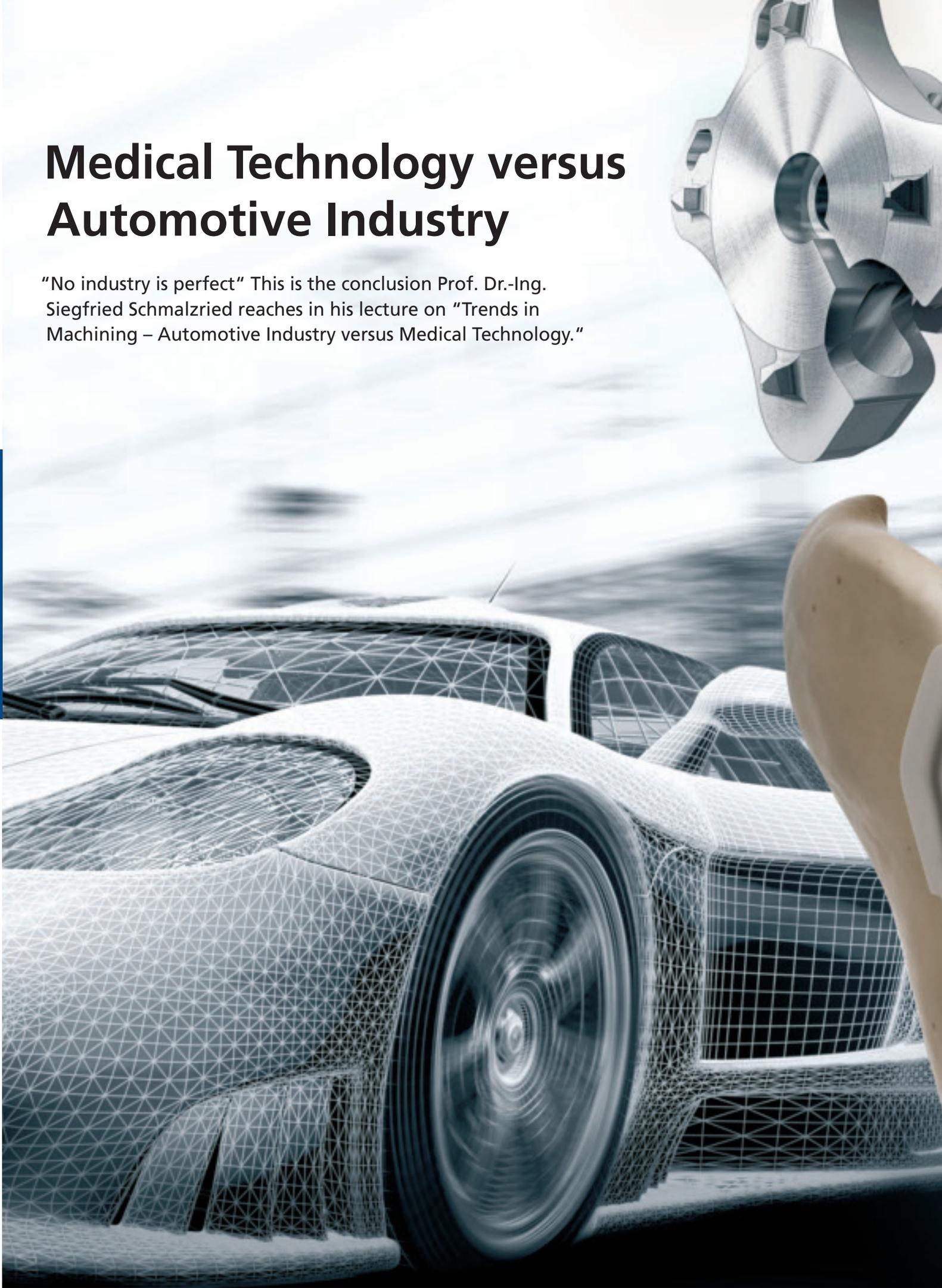


interaktion | 22 - 23 |

- CHIRON Group Events 2017
- Workshop „flexible automation solutions“, Austria
- Expansion in new markets

Medical Technology versus Automotive Industry

"No industry is perfect" This is the conclusion Prof. Dr.-Ing. Siegfried Schmalzried reaches in his lecture on "Trends in Machining – Automotive Industry versus Medical Technology."





Prof. Dr.-Ing. Siegfried Schmalzried

At the 7th Medical Technology Colloquium at CHIRON on November 28 last year, he compared the medical technology and automotive branches in his very interesting lecture.

In his opinion, the key factors and trends in the cutting sector include:

- High-performance processes
- Complete machining and process chain shortening
- Direct drives
- Additive production
- Controls
- Consistent CAX process chains
- Energy and resource efficiency

Medical technology and the automotive branch approach these trends differently.

Goal of medical technology:

To produce a first part as a good part while having short set-up times and flexible use of clamping devices and tools.

Goal of the automotive branch:

To achieve the greatest productivity at the lowest costs and best quality.

In practice, this means:

In medical technology, tooling is often changed, the tool selection is high, a wide variety of

clamping devices is used and the workpieces are processed as completely as possible all the way down to batch size one.

The approach of the automotive branch is different. Serial production is carried out in high quantities, so the highest process reliability has priority. The processes themselves are highly specialized as turnkey solutions. The tools, handling and aids are tailored to the component.

According to Prof. Schmalzried, both industries can learn from each other.

Medical technology, for example, can gain by the implementation of new technologies with turnkey projects. The manufacturer not only supplies the machine but also the processes and is integrated into the product development right from the start. Conversely, the automotive branch can produce low-cost small series for individual customer requirements by providing greater flexibility through intelligent refitting. The consequence is to use modern information systems for setup preparation and for setup as well as to introduce tool and clamping device management.

“Medical technology cutters are trailblazers when it comes to individuality and flexibility, whereas automotive cutters are the leaders in quantity and process stability,” explains Prof. Schmalzried. While cutting trends are implemented in the medical area because of new materials and products, it is production costs and efficiency that usually lead to trends being adopted in the automotive field.

In view of new developments in the areas of cutting materials, tool applications, machine control and information technology, processes should be constantly questioned and rethought, according to Prof. Schmalzried – with a view towards the other branch. ■



„The CHIRON Group is highly professional“

Mr. Ehrk, since the summer of 2016 you have been Managing Director of the CHIRON Group. How have you been received?

The employees at the CHIRON Group have received me very openly and warmly and treated me with great respect. It was a very pleasant start in the group of companies for me.

What has impressed you in particular?

The high level of professionalism with which the CHIRON Group works. I have, for example, rarely experienced such a level of occupational training. It really is very remarkable how more than 100 young people are taught professional skills and with what a high level of commitment the training is carried out. This is also reflected in successes as in the last stage of the World Skills, in which CHIRON occupied the first three places in the milling category. With such a good team, I am optimistic and also confident that we will achieve our common goals.

How do you think the CHIRON Group is positioned and where do you think the journey goes?

The group is well-positioned in demanding markets and offers a broad, complex product portfolio as a turnkey specialist. This is a distinguishing feature with many advantages for our customers. But the breadth of the portfolio that is valued by our customers also carries risks, for example, in product development. We can compensate for these, however, if we go beyond the technical maturity of our products and perform at a top level regarding delivery reliability, quality and flexibility. Our goal is to position the CHIRON Group at the top in metal cutting worldwide.

With which strategy does the CHIRON Group intend to achieve this goal?

We are basically focusing on three strategic areas: sustainable, profitable growth, lean processes and qualified employees. We have just launched a qualification campaign, set up a mission statement and worked out guiding

principles for our group. We want to involve the employees, motivate them and commit them to a shared line.

What role will employees play on the path the CHIRON Group takes in the future?

The decisive role. For example, when it comes to optimizing processes or recognizing waste or overproduction, our employees make the essential contribution in helping to move the CHIRON Group to the top. For this reason, we are involving our employees at a very early stage in our strategic programs. But we do not just involve them; rather, we also give them more responsibility. They should actively participate in shaping the value-creation process and make suggestions on what can be improved. Whereby optimization is a permanent process. It used to be “continuous improvement process“. Today, the term “operations excellence“ is used. This means the continuous and dynamic improvement of any processes and systems based on the customer’s wishes and requirements.

Since July 1, 2016, Mr. **Wolfgang Ehrk** has been, along with Dr. Degner and Dr. Flik, a Managing Director of the CHIRON Group and is responsible for the areas of production, logistics and application as well as quality.

Short CV

Age: 54

Family status: married, one daughter (16). The family still lives in Cologne. Wolfgang Ehrk has a second residence in Überlingen.

Sports: In summer, jogging close to home, in winter, skiing – no local preference, “wherever there is snow”.

Cuisine: Loves good equipment and especially good knives. Enjoys cooking together with his wife, although in this case more as an assistant

Nutrition: Pays attention to a healthy diet. His daughter is vegetarian, so meat is not served very often.

Interests: Architecture, in particular the Bauhaus style: “functional, clearly structured, efficient”.

Music: He likes the Rock and Pop of the 70s and 80s, but also listens to the songs his daughter likes. “Just playing the Stones does not work with children,” he says.

Reading: Fan of Scandinavian detective novels. Has a high affinity to the north. His parents are from Schleswig-Holstein.

Holidays: In the mountains or on the coast at the North Sea or Baltic Sea. The Mediterranean is too hot for him.

If we never see a project or a program as being really completed, but rather as open ended, do we not overtax the employees?

I do not have this impression. On the contrary. I sense a great willingness to change from all sides, and I am therefore very confident that we will master future challenges with our capable team. We are now communicating group-wide, learning about best-practice examples and developing cross-brand synergies. I am convinced that our employees will creatively meet the challenges of the future, such as industry 4.0, e-mobility or additive technologies. We have already purchased a 3D printer. The CHIRON Group was and is highly innovative and will remain so in future thanks to flexible employees.

Mr. Ehrk, thank you very much for the interview ■

CHIRON makes winners

The best CNC milling technicians of Germany come from Tuttlingen. Gold, silver and bronze for CHIRON!

The first female German champion in CNC milling comes from CHIRON

She is quite rightly proud – Eva-Maria Wahl became the first woman to win the championship title in the CNC milling division at the German championships of the professions and, thereby also winning the ticket to the WorldSkills 2017 in Abu Dhabi, United Arab Emirates. The 20-year-old from Irndorf has just completed her training with CHIRON and is now looking forward to the WorldSkills.

But that’s not all. At the AMB in Stuttgart, her colleagues also acquitted themselves well against their competitors. Steffen Sigrist came in second place while Marius Rüdinger took third place – a triumphal success for the CHIRON Group. Even Training Manager

Herbert Matthes did not expect this. “I did not doubt for a moment that we would be as good as anyone. But that our trainees would take the first three places – that is a real surprise,” he says and is pleased for his trainees.

The outward circumstances they faced were very difficult. Under time pressure and strict rules, workpieces had to be produced and processed over several days. In addition to the stress of work there was still a lot of stress from the trade fair: curious visitors at the booth, music sounding, questioning reporters, hectic coming and going and then also challenges like a “funny intelligence test”. You need strong nerves there. “Those who stayed the course and kept their nerves here can do everything in the professional world,” says Herbert Matthes. ■

Gold, silver and bronze for CHIRON at the WorldSkills Germany in CNC milling





SMART Line

The CHIRON Group has put all our digitization activities into the “SmartLine“ brand. These include DataLine, ProcessLine and RemoteLine. Further modules are in preparation.

Digital networking is also shaping the future in machine tool construction – and it needs to be designed with innovation spirit, machine-oriented know-how and a keen eye for cost-benefit relations: “Digitization brings great innovation potential for our industry. But as with every megatrend, it is also important to systematically step forward and keep customer benefits in mind,” says Chairman and Managing Director Dr. Markus Flik.

With SmartLine, the group is currently developing a suite of software and hardware solutions which control and optimize production processes, ensure the availability of systems, enable anticipatory maintenance and provide a wealth of evaluation options.

Close cooperation with the customer

Ever greater demands are made for availability of machining centers. For machine tool manufacturers, this means that they have to deal even more intensively and above all pro-actively with the wishes and requirements of their customers. “Using workshops, joint pre-development projects or the development of machine platforms in close cooperation with our customers, we can anticipate and pick up on specific requirements. We exchange information with our customers intensively about the planned production processes and jointly develop tailor-made, preventive maintenance concepts. In this way, the expansion of digitalization means that real increases in availability can be achieved,” explains Dr. Flik.

Digitization with a sense of proportion

The CHIRON Group pursues the philosophy of using existing sensors for digitization whenever possible. Instead of “Big Data“, the CHIRON Group relies on “Relevant Data“.

Awarded the Innovation Award

The CHIRON Group received the Innovation Award for the DataLine software solution in the "Industry 4.0" category at the AMB in Stuttgart.

society. "The award gives us another motivation to further expand our developments in the field of digitization," adds our DataLine expert Stephan Störmer. ■

At the AMB International Exhibition for Metal Working in Stuttgart in mid-September 2016, the CHIRON Group was awarded the prestigious Innovation Award in the Industry 4.0 category for the DataLine software solution. The prize is awarded by the leading industry magazine MM Maschinenmarkt. The submitted products and solutions are evaluated according to their degree of innovation as well as benefit for users, the environment and



This is one of the reasons why Dr. Flik is convinced that the mechanical engineers will be able to compete with the new players in the field of digitalization. "As a machine tool manufacturer, we have expert knowledge of wide-ranging technical domains that IT companies who want to conquer this market do not have. And this engineering expertise often saves sweeping big-data collections. The pure search for patterns and data correlations in large amounts of data is a viable approach when the interrelationships are unclear. But in our machining centers, we know these causal relationships very well and can gain the corresponding insights more effectively with less data," explains Dr. Flik. He therefore calls for "digitalization with a sense of proportion – for the benefit of our customers." ■

Lecture on Thursday, March 30,
1:00 – 1:30pm, Room 4.6, Forum
"SmartLine – CHIRON on the way to the digital age – solutions and applications"

NEW: REMOTE Line



From everywhere to everywhere – We are able to offer our customers a web-based teleservice with our RemoteLine. This remote diagnostic module increases the availability of machining centers. Error messages from the machine are, for example, sent directly to maintenance by SMS, so that they can act on quickly.

Lecture on Thursday, March 30,
1:45 – 2:15pm, Room 5.5, Forum
"RemoteLine – from integrated machines and process diagnostics to teleservice"

DATALine

The application and service platform for manufacturing.

With DataLine, the machine, tool, raw part, operating materials and measuring equipment etc. can communicate with one another. Whether on the computer, smart phone or tablet, you always know what's going on wherever you are in the machine plant. Important key figures as well as the productivity and availability considerations can be viewed and evaluated regularly.

PROCESSLine

ProcessLine is an important part of the TURNKEY processes.

The CAD and simulation solution allows customers to model, program and simulate their production processes – the entire expertise from a single source.

Lecture on Thursday, March 30,
2:30 – 3:00pm, Room 4.6, Forum
"ProcessLine – from virtual planning to actual production in five steps"



PREMIERE: DZ08 FX PRECISION+

Your advantage – compact, highly precise, efficient, flexible and up to 50% more productive than the previous DZ08

- Highest precision and excellent surface accuracy
- Two highly dynamic milling spindles with 40,000 rpm and short start-up times of 1.9 sec
- A/C kinematics with torque drives
- Wear-free, highly dynamic linear direct drives in the X, Y and Z axes
- Direct path measurement system in all axes
- Compact installation area (3.1 m²)
- Automatic tool change using the pick-up method
- Service-friendly access to all modules (FluidTower)
- Easy to upgrade with VARIOCELL UNO
- Thermostable machine design thanks to water-cooled drives in the X, Y, Z and A & C axes and the milling spindle
- Loading and unloading of the tool magazine during machining time
- Mechanical tool breakage checking nearly parallel to machining time (option)
- Machine tool construction „Designed and Made in Germany“



PRECISION+

For greater productivity and precision

The 08 product group is CHIRON's entry-level series. The main features here are compact design and many technological processing possibilities tailored to customer requirements, all intended to provide economical manufacturing.

After the launch of the MT08 PRECISION+ at the end of 2014, its double-spindle brother, the DZ08 Precision+ as well as the FX version, the FZ08 FX Precision+, are now following.

Both machines are characterized by the advantages of the MT08 PRECISION+: this stands for precise dynamic processing, fast tool changes and flexible use of automation solutions. Both models are also modular and allow a corresponding customer-specific configuration.

The machines are equipped with linear direct drives in X, Y, Z. This means they are almost wear-free and provide the corresponding dynamics and precision. The water-cooled motors that are already included in the standard model in the X, Y and Z as well as in the A and C axes ensure good thermal stability. The DZ08 PRECISION+ is especially designed

for highly productive, very precise and highly dynamic applications; in these cases, a double-spindle solution ensures an increase in productivity while maintaining nearly the same level of processing quality. Machining comparisons have shown that the DZ08 PRECISION+ is up to 50% more productive than the current DZ08. This applies to applications in the automotive industry as well as in the field of medical technology and general mechanical engineering.

In order to further increase productivity, loading and unloading of the tool magazine during machining time is already included in the standard model. A mechanical tool breakage check that is nearly parallel to machining time is available as an option.

The pick-up magazine can access up to 2x48 tools, which means that even complex workpieces can be machined. ■

Lecture on Friday, March 31,

1:00 – 1:30 p.m., Room 4.6, Forum
„CHIRON DZ08 FX PRECISION+ – Up to 50% Increase in Production and Greater Precision in 5-Axis Machining“

Technical specifications

Floor space	A=3.1 m ²
Travel X–Y–Z	210-270-360 mm
Spindle clearance	200 mm
Spindle power	14 kW (25% ED)
Spindle speed	40,000 rpm
Chip-to-chip time	3.0 sec
Drehmoment max.	7 Nm
Rapid feed X/Y/Z	75 / 75 / 100 m/min
Axis acceleration	10 / 17 / 20 m/s ²
Tool change time	0.8 s
Max. number of tools	2x20 / 2x32 / 2x48
Tool taper	HSK-A 40 (E 40)
Max. tool length	200 mm
Maximum tool weight	1.2 kg
Control	Siemens 840 D sl



PREMIERE: FZ08 FX PRECISION+

Your advantage – compact, highly precise, efficient, flexible and up to 50% more productive than the previous DZ08

- Highest precision and excellent surface accuracy
- Two highly dynamic milling spindles with 40,000 rpm and short start-up times of 1.9 sec
- A/C kinematics with torque drives
- Wear-free, highly dynamic linear direct drives in the X, Y and Z axes
- Direct path measurement system in all axes
- Compact installation area (3.1 m²)
- Automatic tool change using the pick-up method
- Service-friendly access to all modules (FluidTower)
- Easy to upgrade with VARIOCELL UNO
- Thermostable machine design thanks to water-cooled drives in the X, Y, Z and A & C axes and the milling spindle
- Loading and unloading of the tool magazine during machining time
- Mechanical tool breakage checking nearly parallel to machining time (option)
- Machine tool construction „Designed and Made in Germany“



Seconds Ahead in the smallest possible space

Low-piece-cost production with the greatest precision, surface accuracy and excellent dynamics

The single-spindle FZ08 PRECISION+ is being introduced on the market at the same time as the two-spindle DZ08 PRECISION+. The machine is designed for machining complex workpieces with high requirements for the accuracy and dynamics of the machine. The target sectors are the automotive industry, medical technology, optical industry, measurement technology as well as the watch and jewelry sector. The machine is also equipped with linear drive technology and can be equipped with up to five axes (A-C kinematics). Up to 96 tools with proven pick-up magazine technology provide sufficient reserve even for complex machining tasks. Loading and unloading of the tool magazine during machining time with a corresponding increase in the overall availability of the system is also possible.

The extensive cooling system ensures thermostability for the machine. Two motor spindle versions are available as spindles. A spindle with 30,000 rpm as default and a spindle with 40,000 rpm as an option. ■



Technical specifications

Floor space	A=3.1 m ²
Travel X-Y-Z	210-270-360 mm
Spindle power	14 kW (25% ED)
Spindle speed	40,000 rpm
Chip-to-chip time	3.0 sec
Drehmoment max.	7 Nm
Rapid feed X/Y/Z	75 / 75 / 100 m/min
Axis acceleration	10 / 17 / 20 m/s ²
Tool change time	0.8 s
Max. number of tools	40 / 64 / 96
Tool taper	HSK-A 40 (E 40)
Max. tool length	200 mm
Maximum tool weight	1.2 kg
Control	Siemens 840 D sl



Highly productive **complete system**

SCHERER[®]
FEINBAU

CHIRON-SCHERER complete system for automated turning and milling from one source

- Work operations are optimally coordinated – cycle times are optimised for maximum output
- Savings through common use of units (e.g., coolant treatment and cooling, extraction)
- Savings regarding additional resources such as energy, personnel or area

Lecture on Friday, March 31,
1:45 – 2:15pm, Room 5.5, Forum
"More efficiency for complete machining
with VARIOCELL CHIRON-SCHERER"

Retrofit directly from the manufacturer



Retrofit machines as good as new!

Equipped and geared up to face new challenges. At a price which makes it more than appealing to enter the premium-class.

Good reasons for a „Retrofit“ through CMS:

- CMS knows innately the history, the quality and the workings of each offered machine
- CMS has the infrastructure and the personnel resources for checking and overhauling of second hand machines on customer-specific requirements
- CMS also has direct access to original parts, drawings and documentation
- CMS offers the accuracy as-new machines
- Short delivery time

Lecture on Wednesday, March 29,

3:15pm - 3:45pm, Room 4.6, Forum

“CMS – make new from old – retrofit from manufacturer“

At the Open House CMS is showing a impressive modernized STAMA machining centre.





Lecture on Wednesday, March 29,
1:45 – 2:15pm, Room 4.6, Forum
“SmartLine – CHIRON on the way to the
digital age – solutions and applications”

HIGH DYNAMIC HEAVY-DUTY CUTTING

So that nothing is missing when you do heavy-duty cutting. The 38 series with HSK-A100 power. Cut challenging materials precisely and with high dynamics.

STAMA

Realizing economic innovations in processes and products

Greater performance density and simultaneously less weight ... we meet workpiece-side requirements that give the part spectra known to us a new property: „difficult to cut“. Not only in terms of their complexity, but also due to new material hardness and toughness, more and more industries besides the automotive, aerospace and fluid branches are asking themselves: Are performance class 63 machines enough? Or is HSK-A100 needed to ensure reliable production in the future to meet the requirements for technical availability and life-cycle costs?

This question is as old as the industry itself.

And yet quite current. In the everyday work in the turnkey project business, it is becoming more and more frequent; there is a strong ten-

dency to go for the „more“ of the performance and stability of class 100; the proportion of the heavy-duty cutting solutions delivered has quadrupled. Developed for the modern manufacture of heavy-duty cutting, STAMA's new 38 series is the right solution for the market.

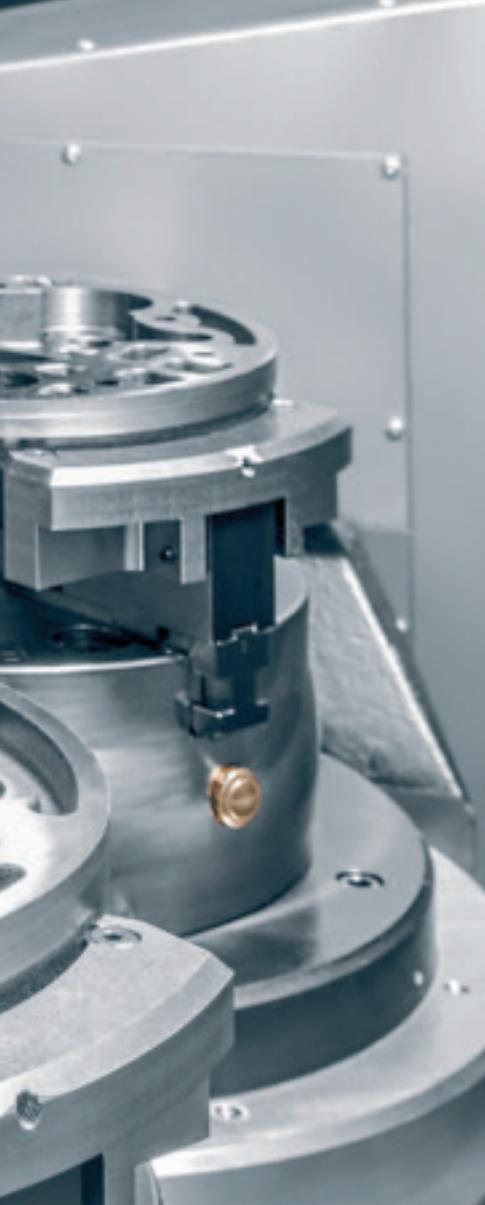
Dynamics and precision with highly productive TWIN technology

The outstanding feature, which all 38 machines share, offers a decisive advantage for this market segment: Namely to work on difficult-to-cut workpieces in serial production with the same dynamics and precision that one is used to with the HSK-A63 class. And, of course, with double-spindle for workpiece sizes up to 600 mm in diameter. The MC 338 TWIN has been added to the series of HSK-A100 machines that include the MC 538 TWIN heavy-duty cutting machine introduced in 2013 and the MT 838 TWIN milling and turning

STAMA MT 724 2C a/no question of the piece umber

Regardless of whether you need (large) serial production or batch size 1, the successes of the MT series in practice will win you over: Increasing process and product innovations with unit cost advantages of 50% and more. Drastic reduction of throughput times due to a high degree of automation.

The productivity of the MT 724 2C with two independent travelling columns and two tools in continuous use is outstanding. The MT2C technology from STAMA simply provides all the freedoms in the processing sequence for complete manufacture in a highly flexible and productive way. Complete machining as it should be. ■

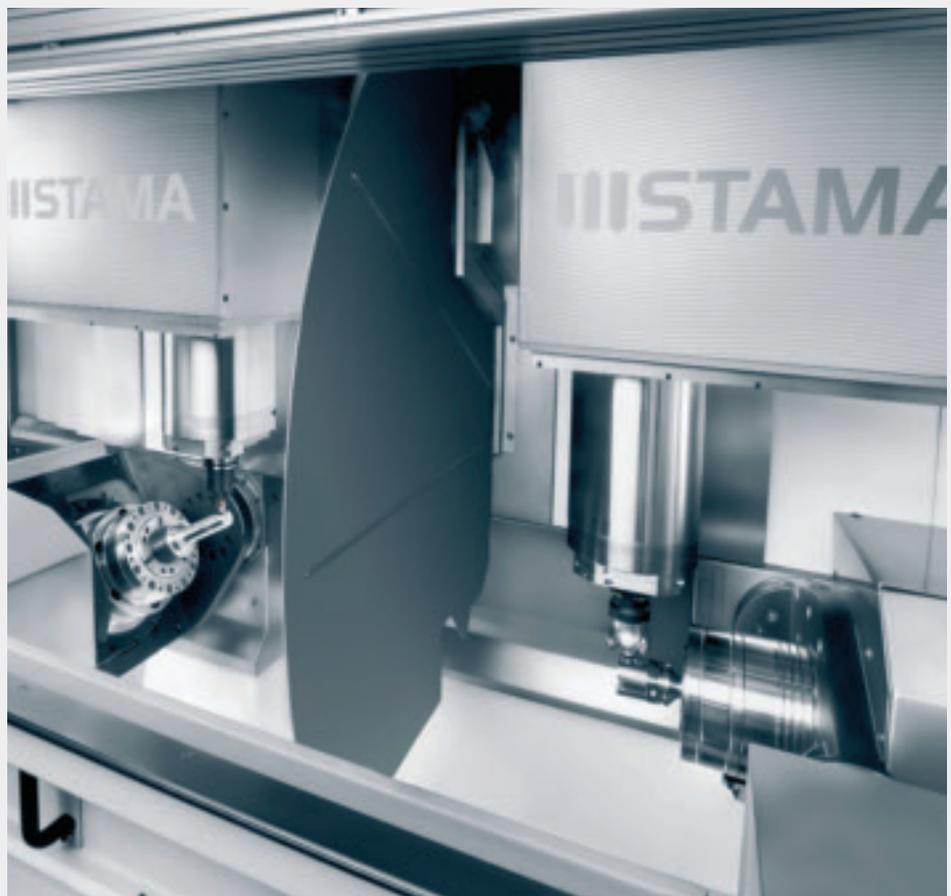


model from 2014. The system 3, which had its world première at the AMB in Stuttgart, has a 180° swivel table for loading and unloading during machining.

Heavy-duty cutting expertise in all areas

Performance per square meter, that is, the proportion of floorspace unit to performance and output, has improved significantly compared to earlier machines.

There are innovative solutions on the tool side, which we know how to get the most from. This allows the 38 series to achieve consistently high precision during the interpolation turning, because the performance, stability and dynamics of the machine are optimally coordinated with each other. At STAMA, we take all the factors into account to ensure that our high-dynamic heavy-duty cutting solution is not missing anything. ■



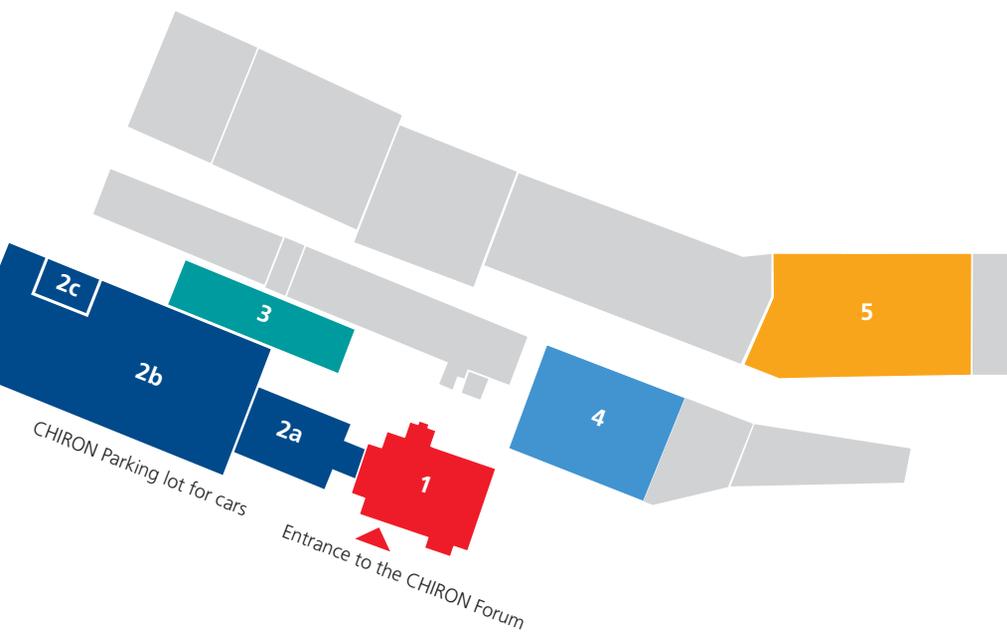


Ahead through knowledge

Programme of events [from March 29 - 31, starting at 9am]

All lectures will be held in german language – if interested ask for english version before.

CHIRON Group The standard for dynamics and precision	Speakers	Wednesday, March 29
"The CHIRON Group – added value thanks to solutions from a single source"	<i>Bernd Hilgarth, Sales Director, CHIRON Group</i>	1:00 – 1:20pm Room 4.6, Forum
"STAMA – turnkey expertise in heavy cutting"	<i>Dr. Guido Spachtholz, Managing Director, STAMA</i>	1:45 – 2:15pm Room 4.6, Forum
"SCHERER – multifunctional vertical turning machining centres"	<i>Michael Scherer, Manager of Research & Development, SCHERER</i>	2:30 – 3:00pm Room 5.5, Forum
"CMS – make new from old – retrofit from manufacturer"	<i>Rui Böninger, Managing Director, CMS</i>	3:15pm - 3:45pm Room 4.6, Forum
SmartLine Efficient processes through digital services	Speakers	Thursday, March 30
"SmartLine – CHIRON on the way to the digital age – solutions and applications"	<i>Dr. Claus Eppler, Manager of Research & Development, CHIRON Werke</i>	1:00 – 1:30pm Room 4.6, Forum
"RemoteLine – from integrated machines and process diagnostics to teleservice"	<i>Paul Buschle, Senior Manager Service, CHIRON Werke</i>	1:45 – 2:15pm Room 5.5, Forum
"CHIRON ProcessLine – from virtual planning to actual production in five steps"	<i>Richard Mink, Team Leader Engineer CAD-CAM & Simulation, CHIRON Werke</i>	2:30 – 3:00pm Room 4.6, Forum
Exclusive evening lecture: "The digitalization of industry – developing entirely new business models"	<i>Klaus Helmrich, Member of the Managing Board of Siemens AG</i>	4:45pm Forum 6th floor
Increased efficiency through greater precision and more dynamics	Speakers	Friday, March 31
"CHIRON DZ08 FX PRECISION+ – up to 50% production increase and higher precision in 5-axis machining"	<i>Stefan Birzle, Head of Global Account Management Automotive, CHIRON Werke</i>	1:00 – 1:30pm Room 4.6, Forum
"More efficiency for complete machining with VARIOCELL CHIRON-SCHERER"	<i>Thomas Marquardt, Head of Automation Engineering, CHIRON Werke</i>	1:45 – 2:15pm Room 5.5, Forum
"Increasing production by new approaches for the medical technology manufacturing"	<i>Rainer Staneker, Sales Manager Medical / Watchmaking / Jewellery / Precision Parts, CHIRON Werke</i>	2:30 – 3:00pm Room 4.6, Forum
After-work user meeting with live music		4:00pm, Turnkey Center



Layout plan

- 1. Forum Exhibition
- 2a. CHIRON Training and Service area
- 2b. CHIRON TURNKEY Center
- 2c. CHIRON Medical & Precision Technology Center
- 3. CHIRON Event tent
- 4. CHIRON 24 series assembly
- 5. CHIRON MILL assembly



Klaus Helmrich, Siemens AG



Live music by the band „The Rehats“



Food and beverages are provided

The digitalization of industry - developing entirely new business models

Exclusive lecture
[March 30th, at 4:45pm]

The Highlight of the accompanying program is a lecture of **Klaus Helmrich – member of the Managing Board of Siemens AG** responsible for the Digital Factory Division and the Process Industries and Drives Division, and for the

Regions of Africa and Europe. He studied electric engineering in college and began his career as a development engineer in 1986. He worked in various parts of the company before joining senior management. Helmrich has been a member of the Managing Board of Siemens AG since 2011. Among other positions, he is the Vice President of the German Electrical and Electronic Manufacturers' Association (ZVEI) and a member of the Executive Board of the Bavarian branch of the German Mechanical Engineering Association (VDMA Bayern).

From the user to the user

Afterwork User's Meeting with live music [March 31 at 4pm]

On the occasion of our Open House we are cordially inviting you to our afterwork user meeting on Friday afternoon at CHIRON in Tuttlingen. The user meeting, which is already a tradition, is a platform for exchanging thoughts of users, operators and practitioners from all industries with a „get-together“ and live music of the band „The Rehats“. Food and beverages are provided – open end.





Partner exhibition

with innovations for even greater productivity

35 partners covering the entire process chain will be presenting their products and services on each day of the event. As previous years have shown, this event is well received by the visitors and offers plenty of room for lively exchanges of experience.



Blum-Novotest – “A global leader in technology and innovation in measuring and testing technology. A reliable partner to the global machine tool, automotive and aerospace industries.”

BENZ – “BENZ develops and produces CNC tools for the Metalworking-, Woodworking- and Composites Industry such as angle heads, multi-spindle heads, broaching units etc.”

CGTech Deutschland – “VERICUT enables NC programmers to correct errors before the program is ever loaded on the CNC machine, thereby eliminating manual prove-outs.”

DIETER Dieter Schätzle – “We are one of the leading providers of tools for the metal cutting industry. We represent Fraisa, Walter and Schätzle VHM tools.”

Dollenmayer – “Your expert partner for milling hard-to-machine material. Your on-site solution to milling problems. Delivery of special tools within 48 hours.”



ence Systems – “Your Partner for Stratasys 3D Printer and the affordable CAD/CAM Solution ZW3D.”

Fanuc – “FANUC provide as a global leader for CNC and Robotics, high performance products for all kind of markets and applications.”

Gühring – “Full range supplier of precision cutting tools. Offering the most comprehensive standard range in excess of 90,000 different products.”

Haimer – “Your system provider around the machine tool: Tooling, shrinking, balancing and presetting technology – all from a single source.”

Hainbuch – “Hainbuch develops, designs and produces different clamping tools that are simple and better!”

Horn – “Whichever alloys you have to machine, Horn offers many innovative tooling solutions for grooving and milling. Efficient, economical, precise. HORN – Leaders in grooving technology.”

Iscar – “Machining Intelligently with ISCAR – your specialist for the entire range of Turning-, Drilling-, Milling- and Finishing tools as well as clamping adapters and accompanying services.”

Kuka Group – “The KUKA Group is a global automation corporation and supplier of intelligent automation solutions from a single source: from components and cells to fully automated systems.”

Mapal – “Technology partner, supporting its customers with the development of time-saving, resource-conserving and cost-effective machining processes using individual tool concepts.”

Marposs – “Leading manufacturer of production measurement technology for in-process and post-process workshop applications and process monitoring systems.”

Motorex – “Your Specialist for water miscible metal-working fluids, cutting-, grinding-, honing-, forming-oils and spindle coolants.”

Open Mind – “OPEN MIND develops the modular CAM solution hyperMILL® which offers powerful strategies for 2.5D, 3D, 5-axis, and mill-turning processes.”

rbc robotics® – “Specialist for camera guided robotic systems: pallet & workpiece handling, charging processing machines, automation for turnkey systems.”

Renishaw – “Your partner for innovative manufacturing.”

Röhm – “First-class clamping tools ranging from the smallest drill chucks to absolutely high-tech power clamping equipment.”

Rother Technologie – “Developer and manufacturer of Aerosol-Dry-Lubrication Systems (ATS) for the machining industry which is awarded several times as one of the most innovative companies of the branch.”

Schilling – “Marking lasers, dot peen marking machines and electrolytic marking machines for direct part marking on metals, plastics and other materials.”

Schunk – “SCHUNK is a leading supplier for technology equipment of robots and production machines.

More than 2,700 employees work for the family-owned company for gripping systems and clamping technology worldwide.”

Siemens Financial Services – “Siemens Financial Services supports manufacturers and sales partners in sales financing. In doing so, the financing solutions are tailored to individual requirements.”

Siemens – “NX as the CAD/CAM-system together with the Sinumerik CNC-technology are the perfect basis for the Chiron ProcessLine, the digital twin for manufacturing.”

Smw Autoblok – “Always a step ahead – with SMW-AUTOBLOK as a technology leader in the area of rotating and stationary workholding.”

Soflex – “SOFLEX offers holistic solutions for the automation and organisation of manufacturing plants and sectors.”

Sprietzer – “Clamping / Testing / Custom-made fixtures – A world of individual solutions.”

voha-tosec – “From micro solid carbide tools over indexable insert cutting tools and customised tooling to arbors, adapters and accessories: voha-tosec offers a sophisticated and standardised high performance product programme.”

Walter – “Walter AG, is one of the leading metal processing companies. We offer a comprehensive range of precision tools and develop custom solutions for fully machining components.”

Wohlhaupter – “Market leader for modular system tools and for more than 85 years a synonymous with precision tools for drilling machining throughout the world.”

Zoller – “For 75 years the E. ZOLLER GmbH & Co. KG has been developing presetting and measuring devices with innovative software for measurement, inspection and management of cutting tools.”

Workshop flexible automation solutions in Austria

Tuesday, 9th May 2017, 1A country hotel Schicklberg

Thomas Marquardt, Manager of Automation will be talking about "innovative automation solutions of the CHIRON Group".

Along this interesting report you can also expect exciting reports about new developments from our partners Soflex, Fanuc, Erowa, Schunk and rbc robotics. We look forward to get together with a snack and refreshments to interesting conversations and discussions.

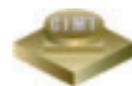


1A country hotel Schicklberg in Austria

Wolfgang Prokopp is looking forward to your participation.
Wolfgang.Prokopp@chiron.de

EVENTS 2017

- 22.03. **MAV innovation forum**, Böblingen, Germany
- 22.03. – 24.03. **MTMS**, Brussels, Belgium
- 23.03. – 25.03. **MECSPE**, Parma, Italy
- 29.03. – 31.03. **CHIRON OPEN HOUSE**, Tuttlingen, Germany
- 04.04. – 07.04. **METALWORKING**, Minsk, Belarus
- 04.04. – 07.04. **INDUSTRIE**, Lyon, France
- 17.04. – 22.04. **CIMT**, Beijing, China
- 09.05. – 12.05. **MACHTECH**, Budapest, Hungary
- 09.05. – 13.05. **EXPOMAFE**, Sao Paulo, Brazil
- 15.05. – 19.05. **METALLOBRABOTKA**, Moscow, Russia
- 06.06. – 09.06. **MACH-TOOL**, Posen, Poland
- 20.06. – 23.06. **EPMT**, Geneva, Suisse
- 18.09. - 23.09. **EMO**, Hannover, Germany
- 27.09. – 29.09. **PromExpo**, Volgograd, Russia
- 09.10. – 13.10. **MSV**, Brno, Czech Republic
- 11.10. – 14.10. **TIB**, Bucharest, Romania
- 14.11. – 16.11. **FLEXTEC OPEN HOUSE**, Hedensted, Denmark
- 15.11. – 17.11. **MACHINERY Central Asia**, Tashkent, Uzbekistan
- 17.11. – 18.11. **MAV Innovationsforum**, Chongqing, China
- 28.11. **Medical colloquium**, Tuttlingen, Germany
- 02.12. – 05.12. **Manufacturing Indonesia**, Jakarta, Indonesia



Expansion in new markets

With distribution- and service companies in France, Italy, Poland, Turkey, China, India and the USA as well as 57 additional representatives, the CHIRON Group is represented worldwide.

The group constantly expand it's international presence. In the last year the group build a new office building in Poland (Paniówki) with an affiliated hall for the control of the polish and eastern European markets and introduced a new distribution and service establishment in the USA (Detroit).

“We want to grow up in Asia, north America and east Europe”, explained Chairman and Managing Director Markus Flik. “Thereby China is perspectively a very important market for us. The country has despite of the falling growth figures a good structural potential. The propensity to invest of our Chinese customer is still intact and the trend for more automation will bring substantial gains in China in the future. Thereby the essentially

success factors are similar in all markets of the world: With optimal life-cycle costs, high technical availability, first class delivery quality, highest delivery reliability and smarter networking we will render a top performance in the future”, stressed Dr. Flik. Furthermore new products as well as the expansion of the digitization and the Turnkey-business should give growth impulses. ■



VARIOCELL UNO

Integrated automation realized on the smallest possible footprint with 6-axis robot, workpiece storage and turning station.



INDUSTRIELYON
THE TRADESHOW FOR PRODUCTION TECHNOLOGIES

The CHIRON Group will present three machining centres:

- CHIRON **FZ08** MT PRECISION+
- CHIRON **VARIOCELL UNO** mit **FZ12** FX
- STAMA **532 4002**

The exhibition team is looking forward to your visit.



■ Production, Sales & Service
■ Sales & Service
■ Representatives



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DATAline

Win with CHIRON

Come to our **OPEN HOUSE 2017** in Tuttlingen. Increase the value of your visit by winning CHIRON DataLine Software Packages, **worth more than 30,000.- EURO**. We'll keep our fingers crossed. Good luck!

CHIRON Group

