speedfactor

The CHIRON Group customer magazine **02.2018**

Performance meets precision

Global debut at the AMB
New series from CHIRON and STAMA

Digital assistants
SmartLine with three new modules

In association with

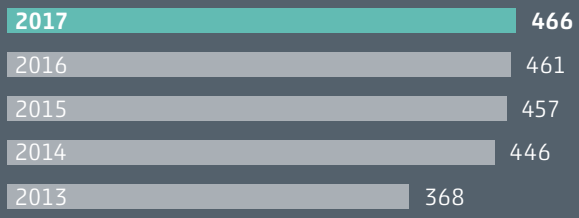
Engineering Technology Group

CHIRON Group

466

million euros – the turnover generated by the CHIRON Group in 2017

Turnover (million EUR)



65 %

of the total turnover was in Germany and Europe

> 260

service professionals worldwide

150

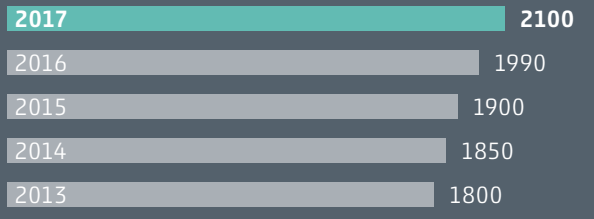
apprentices with the CHIRON Group worldwide

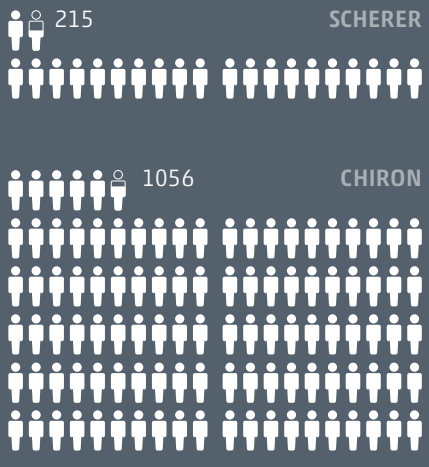
63 %

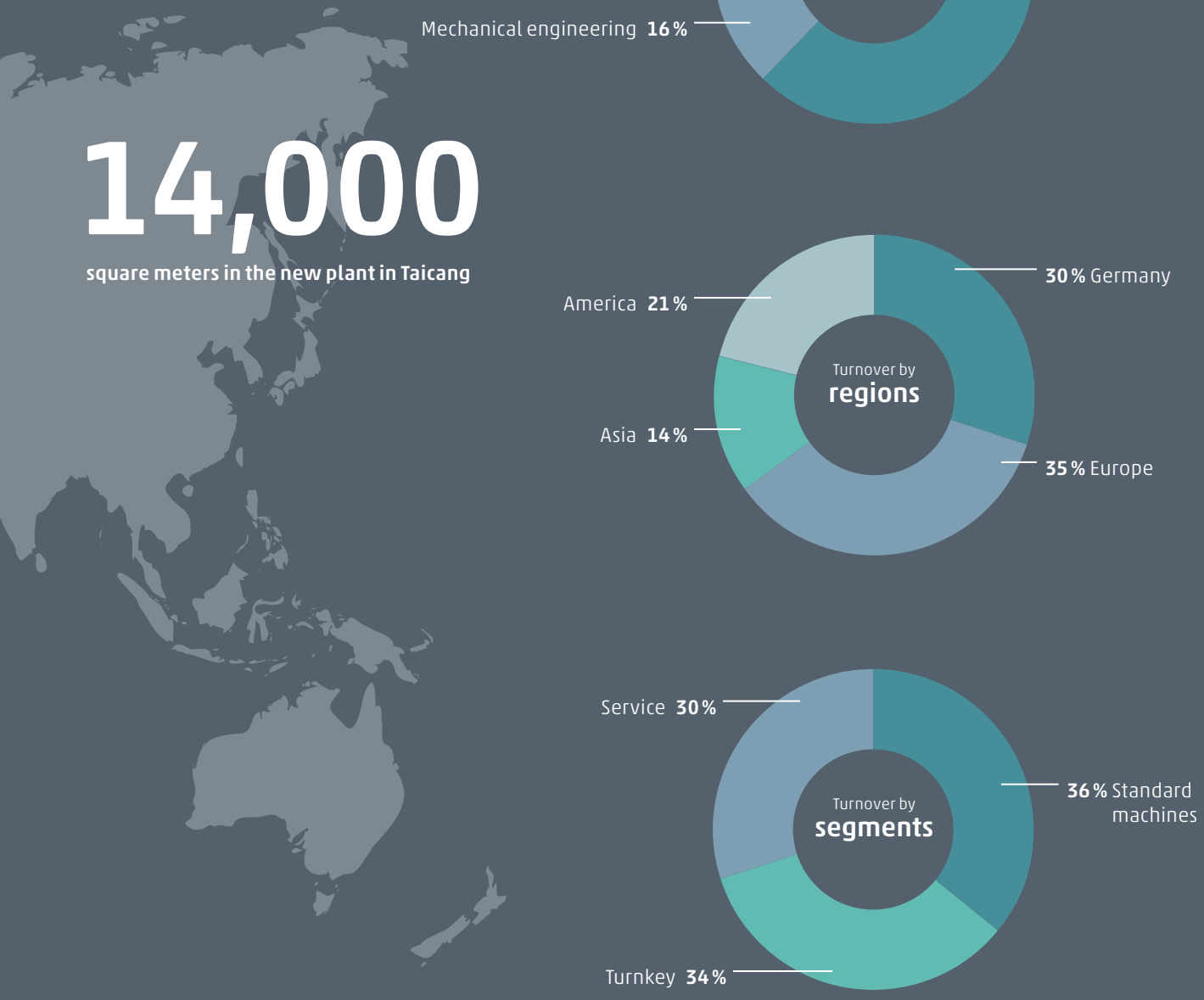
of orders were from the automotive industry

Employees worldwide

Data from: December 31, 2017







41 CMS

403 STAMA

China 149

USA 124

Italy 36

Poland 25

France 22

Turkey 15

India 8

Mexico 4

Laying the groundwork for new standards in the digital age

Advancing digitalization and e-mobility are, among other things, impacting on the company strategy of the CHIRON Group. This is why we are resolutely expanding the range of software solutions for digital manufacturing. The modular toolkits for CHIRON and STAMA, the building plans for the Precision Factory in Neuhausen ob Eck and the new plant in Taicang, China, as well as the platforms for a new generation of machining centers, mean that the Group is well equipped to face the challenges of the future.

New solutions for digital manufacturing
Software systems for digital manufacturing have been a part of the range of services offered by the CHIRON Group for years, and are a key growth driver. The interaction between machine and software gives rise to integrated software solutions that enable customers to utilize the whole potential of digital manufacturing. The SmartLine range and its modules – DataLine, ProcessLine and RemoteLine – help optimize product quality, which means an increase in machining productivity and machine availability. Activities in 2017/18 have been focused on the development of further modules that will expand the SmartLine toolkit from 2019.

E-mobility reinforces international growth
The CHIRON Group generated two thirds of its turnover with customers from the automotive and supply industry. Maximum productivity is a key competitive factor in the automotive sector. At the same time, the focus is constantly towards the development of this market. The aim is to proactively develop sector-specific process exper-tise and integrate this into new manufacturing solutions. With its machining centers and automation systems, the CHIRON Group offers tailor-made solutions for producing electric drive components: New vehicle and drive concepts require special components, assemblies and units, such as electric compressors, electromagnetic brake boosters and electric axle drives. Meanwhile, the demand for turbochargers for combustion engines is also rising, and with it the proportion of compressor wheels that must meet the stringent requirements for precision and dynamics in machining.

Expansion of the scope of services in Asia and Europe
The construction of the new CHIRON Precision Factory in Neuhausen ob Eck is the biggest single investment of the CHIRON Group since it was established. The year 2017 was marked out for its strategy and planning projects, as well as the decision, made by the Board of Directors and the Executive Board, to invest over EUR 30 million in the Tuttlingen/Neuhausen site. The building of the plant, which will cover an area of almost 14,000 square meters, is set to begin in 2019. The foundations for a new plant at the Taicang site in China were laid at the end of October 2017. The increased demand for machining centers and services in China has pushed the CHIRON Group, which has established itself in China as a supplier of high-quality machining solutions, to the limits

of its capacity. The Group is investing more than EUR 10 million in China. Production is planned to begin in Taicang in the first half of 2019.

CHIRON Group perfects its market profiles
The Group is using the recent development of platforms for future series to perfect the profiles of CHIRON and STAMA. The basis of both brands is productivity and precision. They demonstrate their unique characteristics in different ways: CHIRON with high precision and dynamics, STAMA with excellent stability and performance. Thanks to their new design principles, both platforms are characterized by exceptionally high rigidity. This enables CHIRON and STAMA to use their highly developed turnkey skills to optimize existing manufacturing and process solutions and to tap into new markets. Both companies are showcasing the first of their machining centers to be based on the new platforms at the AMB 2018.

2017: The year in numbers
The CHIRON Group continued to increase its turnover in 2017: With EUR 466 million, the company group exceeded its turnover from the previous year. At 65 percent, the turnover share of the European market was similar to that of the previous year. America and Asia contributed 21 and 14 percent respectively to the Group's turnover.

In 2017, the CHIRON Group achieved its largest turnover share with standard machines (36 percent). Turnkey orders were at 34 percent, while services grew slightly at 30 percent.

In terms of order receipts, the automotive and supply industry remained the strongest segments at 63 percent. At 16 percent, the mechanical engineering sector showed an increase over the previous year. Medical and precision technology followed at six percent, and aerospace at three percent. The tool manufacturing industry contributed four percent.

"China offers huge growth potential in the automotive industry and medical engineering in particular, and also in aerospace; this makes it a market of extreme strategic importance. According to analyses, China is the largest future market for e-mobility. This means excellent sales opportunities for our company group in the automotive industry. Add to this the increasing demand for high-precision machining centers for manufacturing surgical instruments and implants."

"We are constantly expanding our range of software solutions while implementing further SmartLine modules. These enable us to use targeted planning of maintenance and servicing to continue to increase productivity and machine availability. As a central player in the VDW initiative for networked production and a founding member of MindSphere World for the open IoT operating system MindSphere, the CHIRON Group is involved in key sector initiatives."

Dr. Markus Flik, CEO

Dear customers and friends of the CHIRON Group,

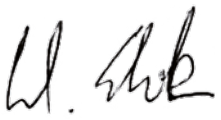
As the AMB trade fair approaches, we would like to take the opportunity in this issue to present our new generation of machine tools, which will be officially premiered in Stuttgart: The CHIRON DZ16 W and FZ16 S machining centers for highly dynamic, precise five-axis machining and the STAMA MT 733 for robust milling/turning machining of hard-to-machine materials.

Another hot topic – in this magazine and on our booth – is digital manufacturing with new components of the modular SmartLine range: ConditionLine detects faults early on, allowing targeted planning of maintenance and repair work. ProtectLine protects your machining center from potential collisions and TouchLine provides the operator with context-sensitive information.

Also in this edition: A STAMA user report from the medical engineering industry, a look back at the OPEN HOUSE of CHIRON and STAMA, and a report on Stiftung Balm, the Swiss charity at which a CHIRON machining center is helping employees to manufacture competitively despite their disabilities.

And on an in-house note: To keep you up to date with all inter-company proceedings within the CHIRON Group, we would like to inform you that we have a new corporate design. As a result, the **speedfactor** magazine has also taken on a new look: Slicker, neater and even better aligned with what you want – in-depth and reader-friendly articles. We hope you enjoy reading!

The Executive Board of the CHIRON Group



Wolfgang Ehrk Dr. Markus Flik

12 **New SmartLine modules**
Digital assistants for greater productivity

16 **World premiere at CHIRON**
New 16 series

22 **42,000 spindle hours per year**
Six MILL 6000 at WILA

26 **30,000 times gravitational acceleration**
Complete machining at Eppendorf

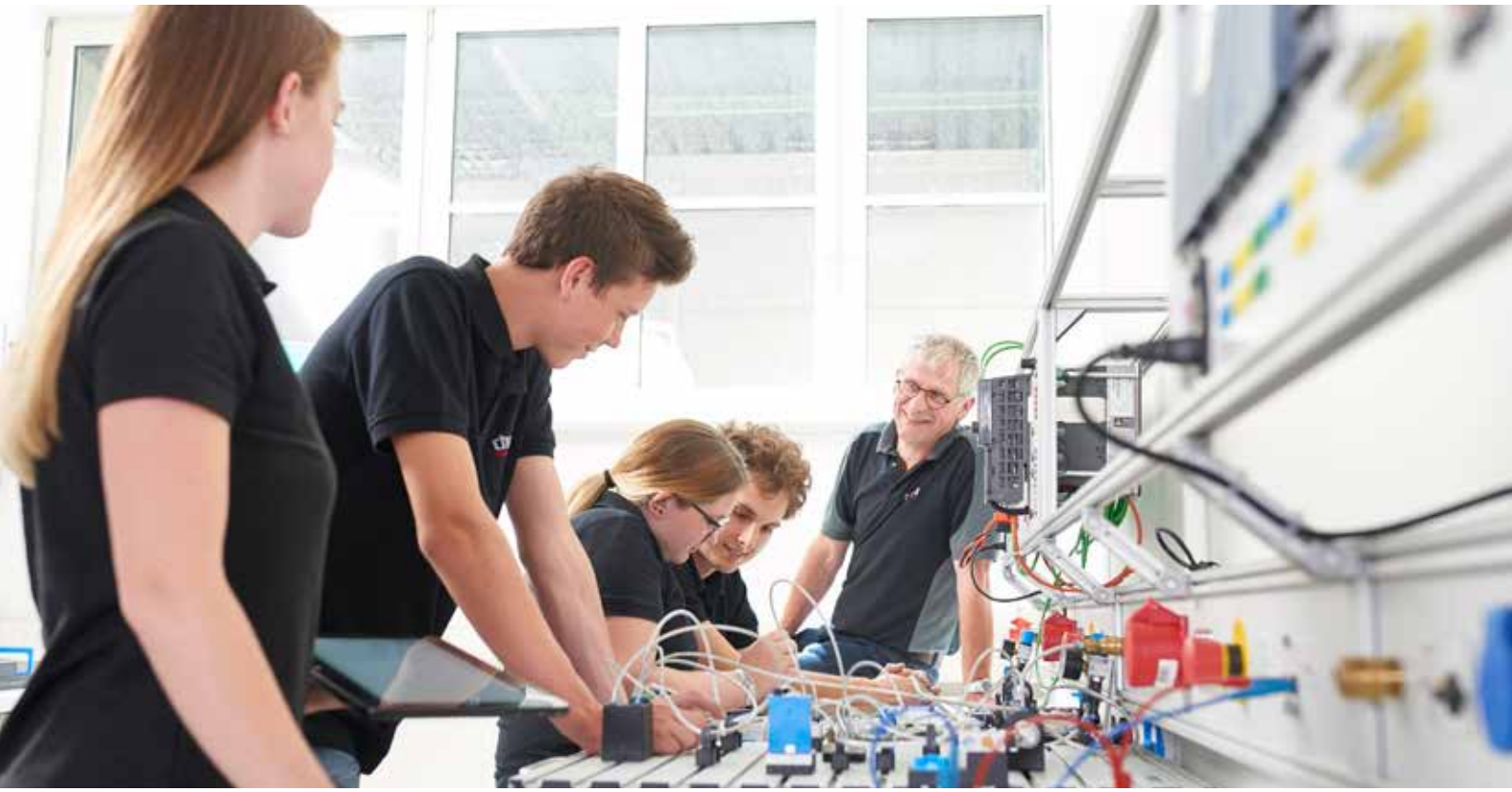
INTRO

INSPIRE

INTOUCH

INSIDE

For reasons of the legibility the male form was chosen in the text, the information refers nevertheless to members of both genders.



Outstanding training at CHIRON

Exciting news about the hands-on training that our apprentices receive every day in Tuttlingen: According to a study conducted by DEUTSCHLAND TEST and FOCUS MONEY, CHIRON is now officially one of the best businesses for training in Germany.

Structural data, training success, remuneration, apprenticeship quota and supplementary offers: These were the five areas assessed in the study of approximately 20,000 companies from more than 90 sectors. Herbert Mattes, Head of Training, was particularly pleased to hear that CHIRON received an overall rating of excellent, stating: "This distinction confirms the quality of our training, which has been recognized for many years." In the face of a growing lack of specialists, the company has increased the numbers of newly trained personnel passing out through its own gates, leaving nothing to chance in its training program. As part of their journey to becoming experts, the apprentices reap the benefits of the high standards at CHIRON: From the introductory apprenticeship courses through to the final advanced training course, the trainers have customized the syllabus with individual challenges for each apprentice, and from the start of the academic year in September 2018, all apprentices will receive a tablet with access to the new digital CHIRON learning platform. "We are doing this to enable personalized learning, so that we can offer each individual the encouragement they need," Herbert Mattes explained. "For example, the program automatically assesses tasks completed as part of exam preparation, enabling us trainers to focus on our work, which is to provide comprehensive, practical training for a career in engineering and business."

Events 2018/19

We will also be attending numerous trade fairs and exhibitions the following year. Why not pay us a visit?

* For more information about our workshops and to find out which subjects will be discussed, visit www.chiron.de/en/events

SEPTEMBER		
10.09. – 15.09.	**IMTS**	Chicago, USA
18.09. – 22.09.	**AMB**	Stuttgart, Germany
25.09. – 27.09.	**OPEN HOUSE Machinery Oy**	Tampere, Finland
OCTOBER		
01.10. – 05.10.	**MSV**	Brno, Czech Republic
02.10. – 07.10.	**Maktek Avrasya**	Istanbul, Turkey
10.10. – 13.10.	**TIB**	Bucharest, Romania
04.10.	**Workshop***	Neuchâtel, Switzerland
NOVEMBER		
07.11. – 09.11.	**FMB**	Bad Salzuflen, Germany
14.11.	**Innovationsforum CH**	Lucerne, Switzerland
14.11. – 16.11.	**Machinery Central Asia**	Tashkent, Uzbekistan
15.11.	**Workshop***	Neuhausen / Fildern, Germany
20.11 – 23.11.	**Intern. Industrial Forum**	Kiev, Ukraine
21.11. – 24.11.	**Metalex**	Bangkok, Thailand
21.11. – 24.11.	**EMAF**	Leca da Palmeira, Portugal
28.11.	**9th »Medical Technology Colloquium«**	Tuttlingen, Germany
JANUARY		
24.01. – 30.01.	**IMTEX**	Bangalore, India
FEBRUARY		
05.02. – 08.02.	**INTEC**	Leipzig, Germany
MARCH		
05.03. – 08.03.	**INDUSTRIE Paris**	Paris, France
21.03.	**MAV Innovationsforum**	Böblingen, Germany
27.03. – 29.03.	**MTMS**	Brussels, Belgium
28.03. – 30.03.	**MECSPE**	Parma, Italy
APRIL		
09.04 – 12.04.	**Metalworking**	Minsk, Belarus
15.04. – 20.04.	**CIMT**	Beijing, China

CMS supplies 1000 retrofit machines

On February 8th 2018, CMS had a special reason to celebrate: Director Rui Böninger presented LEIBER-Poland Sp.z.o.o. with its thousandth newly refurbished machining center.

The CHIRON FZ18 W is now the fifth successful retrofitting and modernization project run by CMS for the LEIBER Group subsidiary. With good reason: All systems set to receive a comprehensive upgrade in Neuhausen ob Eck – for example, by integrating the latest control technology with increased processing power – were around 20 percent more productive than they were originally, and will last for many more years to come. The team in Ruda Slaska, south Poland, is now using five CHIRON machining centers to machine the same order volume as they used to process with six. These experts are using the now available machining capacity for lightweight components, enabling them to react with greater flexibility to the latest market opportunities and bridge the intermittent downtimes of the sixth system – which has now also been handed over to CMS for reconditioning and updating. The occasion of the thousandth CMS machine to be used at the Polish CHIRON subsidiary was celebrated with a hearty breakfast. LEIBER-Poland was presented with an elaborately designed glass cuboid as a present, engraved with the 3D laser of the FZ18 W.

Directors Rui Böninger and Rainer Keller from LEIBER-Poland at the handover

CHIRON Group occupies international future markets

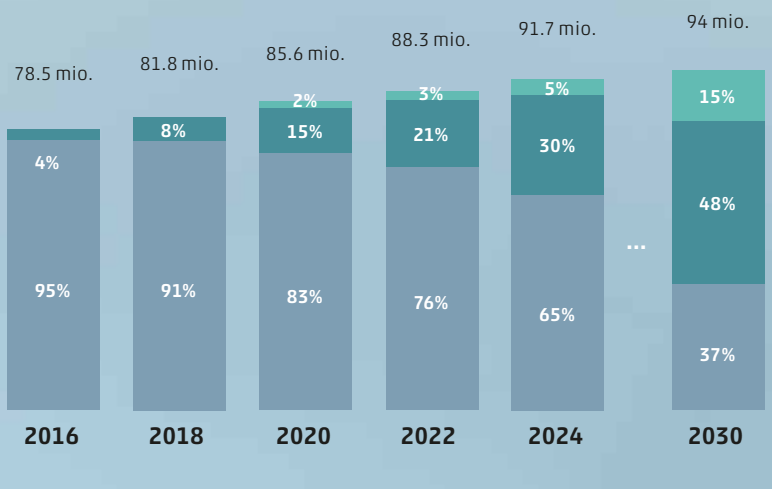
E-mobility and China

In 2017, German automotive manufacturers built more vehicles than ever before, while the global demand for automobiles remained unrelenting. The sector trends are not only moving towards hybrid and electric drives; combustion engines too will need to be more efficient in terms of energy and performance: For example, the continued downsizing means that the demand for turbochargers is estimated to increase by 40 percent to 57 million units world-wide in the next five years.

"Two thirds of our turnover is generated with customers from the automotive and supply industry," explained Dr. Markus Flik, Chairman of the Executive Board of the CHIRON Group. "This means that, as a group, we have to accurately estimate the developments and future requirements of the sector and meet them with appropriate manufacturing solutions."

Electrified drives on the up

Vehicles produced worldwide (millions)



Source: IHS, www.ihs.com, AutoInsight 04/2016, FEV

Component requirements for e-mobility
Across the world, the production of electrified drivetrains is becoming ever more significant. New vehicle and drive concepts for passenger and goods transport require special components, assemblies and units, such as electric compressors, electromagnetic brake boosters and electric axle drives. The conceptual design of vertical machining centers means that they are particularly well equipped to achieve the high level of accuracy required by some of these components. The CHIRON Group built up a level of process expertise in this market early on, and thanks to its range of manufacturing centers, the Group is already a specialist in these requirements.

In addition, the Group has begun a large-scale market offensive, launching new machining centers which are primarily designed for manufacturing structural components and hard-to-machine materials. These machining centers combine high rigidity with outstanding dynamic properties, enabling them to meet the new requirements set for modern manufacturing processes by the rise of electrification.

Future combustion engines require more complex components
"In 2025, around 90 percent of vehicles on the road worldwide will still use a combustion engine," Dr. Markus Flik predicted. "These will be high-tech engines – that is the only way to achieve the CO_2 target of 95 g/km by 2021, and the reductions that follow." It is not just the increasingly stringent requirements for precision in engine components that will achieve this target; the complexity of the individual assemblies will continue to grow too. For example, oil pans in future will not only act as collecting containers for lubricant; they will also serve as a bracket for the engine, reinforcement for the crank drive and a housing for other units such as oil pumps and oil filters. An increase in injection pressures is also a key factor in reducing emissions. This requires closer tolerances and precise sealing surfaces. While necessitating a greater number of tools in the machining centers, this development also demands a high degree of process expertise. As a turnkey specialist, the CHIRON Group has ideal solutions to offer with its machine series and automation systems. Dynamics combined with precision – these are decisive properties for manufacturing increasingly complex and precise components.

The focus: Even more productive manufacturing
"Maximum productivity is a key competitive factor for the automotive industry," stated Stefan Birzle, Head of Global Account Management Automotive at CHIRON. "The CHIRON Group's new machining centers are enabling our customers to gain the competitive edge that they need over the market." For example, loading and unloading times have been reduced by up to 20 percent and machining times by up to 50 percent. Two series from the Group-wide product offensive have already been built, and will be presented to experts at the AMB trade fair in September 2018.

Greater productivity: A reduction of up to 20 percent for loading and unloading times and as much as 50 percent for machining times.

The digital tools in the SmartLine range are also contributing to process optimization, helping to make manufacturing more flexible and to optimize system availability. This is achieved by preventative maintenance and servicing, for example. Machine and digitalization therefore complement one another to form a system solution that is characterized by optimum value for the customer.

Vast market potential in China
With the largest share in global production volume worldwide, China has become the key sales market and production location for the German automotive industry. The Chinese market has key significance for the CHIRON Group too, which is why the Group is currently investing more than EUR 10 million in its new plant in Taicang: "China is the growth market, and we see great potential in the automotive industry. For us, the new plant is a decisive investment in the future," Dr. Markus Flik explained.

Market analyses predict a continued rise of automobile sales and production capacities up to 2025. In addition, the e-mobility sector is growing faster in Asia than in Europe. Today, China is already the market with the greatest number of battery-powered vehicles. "With our machining solutions for manufacturing the much-demanded drivetrains, we are well equipped for this future market," stated Bernd Hilgarth, Head of Sales at the CHIRON Group, underlining the international position of the company group in the automotive industry.

Digital assistants for greater productivity

How will the CHIRON Group do justice to its role as a leading partner in matters of digitalization? How can it convincingly meet the demands for greater productivity, optimized product quality and increased machine availability? The answer is simple, yet contains many solutions: SmartLine – modular system software with three new tools: ConditionLine, ProtectLine and TouchLine.

With the SmartLine range, the CHIRON Group provides a modular software system with which customers can tap into the whole potential of digital manufacturing. Three new modules will be showcased for the first time at the AMB trade fair in Stuttgart: ConditionLine, for automatic machine condition monitoring; ProtectLine, for collision prevention; and TouchLine, the new interactive operating system.

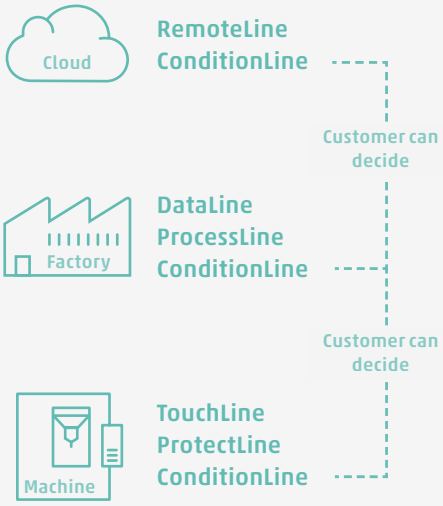
ConditionLine – new module for greater productivity

Precision, speed, availability: These are the criteria that should be applied to a machine tool. A condition-oriented maintenance strategy is essential if these are to be fulfilled sustainably. This requires constant monitoring and analysis of the machine condition. ConditionLine is the perfect tool for this task. The software automatically analyzes all machine data that is relevant for the machine. Unusual operation behavior and signs of wear are detected early on, enabling targeted maintenance and repair planning, and preventing costly downtimes or losses of productivity.

Scalable approach from machine to cloud

The solution's uniqueness is thanks to edge computing, which allows data to be collected, compiled and processed directly at the system. Depending on the machine, the functional scope of ConditionLine can be scaled from the machine to the factory and right up to the cloud. Thanks to this explicitly customer-oriented system architecture, ConditionLine does not necessarily require a cloud infrastructure, but rather allows each customer to choose the degree of networking that they want.

SmartLine – an overview of all modules



ConditionLine	Constant monitoring and analysis of the machine condition Early detection of unusual operation behavior Customized degree of networking	**Maintenance engineer** **Service**
ProtectLine	Collision monitoring in all types of operation Preventative collision protection Safety during machining	**Machine operator** **Maintenance engineer**
TouchLine	Context-sensitive information Machine-specific support User-guided operation	**Machine operator** **Installer** **Maintenance engineer**
RemoteLine	Machine remote access Rapid assistance in event of fault Automatic notifications Optimum data security	**Customer maintenance engineer** **Service**
DataLine	Visualization of machine condition and process progress Configurable system Real-time information about all machinery	**Production planner** **Head of manufacturing** **Controlling**
ProcessLine	Digital twin and post-processor "Digital" process run-in Collision-tested NC program	**Production planner**

No more collisions

ProtectLine employs preventative measures to protect against collisions in all types of operation. To achieve this, the new FZ/DZ16 machining centers have a "digital twin" which exactly replicates the real machine. During operation, the digital twin runs 0.8 seconds ahead of the real machine – any threat of collision is detected and the machine is brought to a controlled stop, preventing any potentially significant damage.

Intuitive and interactive: TouchLine

TouchLine will also be introduced at AMB. The new operating system will be showcased on the CHIRON FZ/DZ16 systems and the STAMA MT 733, all of which will run it as standard from their market launch. With a diagonal screen measurement of 24", the panel provides plenty of space for clearly displaying the right information at the right time with an easy-to-understand layout. The interaction options are reduced to the bare essentials; the panel has intuitive and interactive operation with the same familiar motions as for smartphones and tablets: Press, drag and swipe. Known procedures from previous control systems are integrated, making the change to the new system quick without requiring a process of familiarization. Condition messages are also integrated into the visualization. These display critical parameters, detect the cause and suggest rectification solutions.

"The constant systems monitoring and preventative maintenance made possible with ConditionLine provide considerable benefits with regard to machine availability, and in so doing improve productivity."

Pascal Schröder, Condition Monitoring Project Director

Optimizing our DNA

Text: Rüdiger Kroh © NCF 6/2018
Shortened version

STAMA has reinvented the foundation upon which end-to-end machining is based. With the MT 733 series, it is the gantry design that guarantees huge improvements to stability and dynamism for the first time. Further steps to optimize milling spindles, the drive concept, and heat management also boost process stability. Users can take the four models that make up the modular system and a wide selection of equipment options to configure the perfect machine for them.

We see it time and time again within the automotive industry: Car models are given a facelift every so often before the next generation follows after a full overhaul. Here at STAMA, we were faced with the question of whether we should go for the facelift or start from scratch.

"The system is ideal for ultra-precise parts requiring plenty of machining steps and the maximum number of tools."

"We didn't want to just push forward with a typical development where you get another tenth out of the machine but have to cut ties with the previous version in the process," Gerhard Ulmer, Sales Manager at STAMA, reveals how they resolved this dilemma at the company. "Our aim was to reinvent end-to-end machining without losing the DNA that makes STAMA what it is." And the result of this thought process was the MT 733. "This new series saw us leave behind the traditional STAMA operator's platform and instead opt for the gantry design" Ulmer explains the most significant change. "We wanted to improve specific properties of our milling and turning machines to ensure that our latest MT design would be fit for the next few years."

In 1997, STAMA took the first step towards end-to-end machining. It became possible to fully mill and drill a workpiece right from the bar in two clamping positions on a vertical machining center – across five axes and on all six sides. This cut down the time taken to evolve from blank to finished part by some considerable margin. But why from the bar directly? Ulmer explains: "The usual way of bringing down the costs per unit follows the Taylor Principle in that every production unit is optimized for an individual process. Dividing up the overall process into tiny separate steps in this way doesn't allow for a lot of flexibility when it comes to changing workpieces and more time is spent moving parts around than actually machining them. By milling right from the bar as part of a clamping process, all of the different processes are combined on one machine, which allows for extreme flexibility and saves having to retool. The quality is also improved as it is only necessary to clamp once."

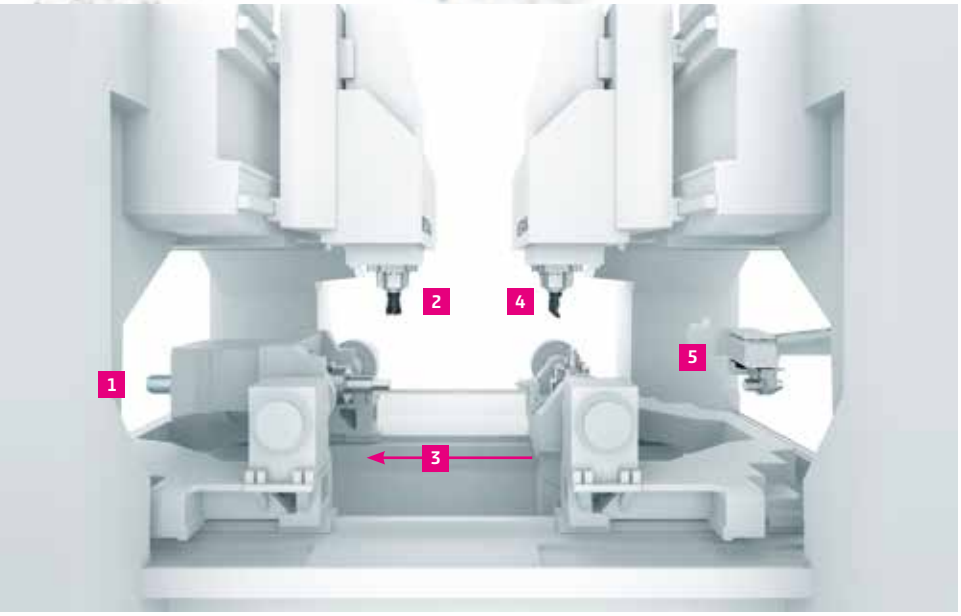
"Our aim was to reinvent end-to-end machining without losing the DNA that makes STAMA what it is."

Two workstations for a boost in productivity

In 2007, the MT 2C series brought about a boost in productivity with its two workstations, each with a milling and turning spindle, that allowed for complete machining of two workpieces at once. Whilst STAMA had only focused on small batch sizes of up to 50 with this series until this point, the company then opened up the option of large-scale production. Plus, bar and chuck machining came along with the 2C generation of machines. And so the Schlierbach-based company has responded to its customers' increasing demands time and time again over the past 21 years – and the results have been a success. "We now have hundreds of machines on the market and we know that they are used to machine over 3000 different workpieces," says Ulmer. "These are exclusively turnkey solutions, with the proportion of multi-spindle machines and milling and turning centers being even." And yet the market changes. The time had come to find the solution to the latest challenges. The answer came in the form of the 733 series.

The goal of excellent stability

"We are seeing more and more materials that are difficult to machine being used and the level of precision required for parts is constantly increasing," says Michael Wurster, STAMA Product



Machining all six workpiece sides in just five steps

1 Infeed of bar material via bar loader
2 Milling/turning machining OP 10
3 Detachment/workpiece transfer
4 Milling/turning machining OP 20
5 Automatic removal of finished part

World premiere at AMB 2018

Optimizing complete machining with the new MT 733 series

Manager, covering the focal points during development. "What we needed was an extremely stable machine with high static rigidity and low dynamic yield. We had reached the physical limits as far as the classic operator's platform was concerned given that relatively high masses had to be moved in that case. In the end, our brainstorming led us to the first STAMA machine with a gantry design."

STAMA's aim for the MT 733 is to respond to the highest of demands for simultaneous machining across five axes. With that in mind, the new Galaxie® drive concept replaces the previous screw drive for the B-axis. As contact is made virtually over the entire surface in this case (unlike with the standard involute toothing), the torsional rigidity, long-term precision, and overload capacity are all outstanding. A lot of thought has been put into thermal stability in the form of the design features. The 733 series has a thermo-symmetrical design with polymer concrete as the material for the basic framework, providing a high thermal capacity and low thermal conductivity, meaning that reactions to fluctuations in the ambient temperature are much slower than with a welded steel structure. Active temperature compensation at the milling spindle also improves accuracy at the tool's tip. An active cooling system is available as an optional extra for the basic framework, with the cooling pipes being molded into the polymer concrete. "This allows us to remove heat and cool linear guides along the X- and Y-axis and in the collecting channel directly," explains Wurster. "This option is designed for precision machining in line with requirements for the maximum level of accuracy for the parts."
Sales Manager Ulmer continues: "We have now entered into a world where the first part is a good part. The aim here is to achieve process stability so as to reduce batch sizes further and thereby ensure that even the first part to be produced is fully in line with the specifications. This is becoming an increasingly important requirement in any case where expensive parts take a long time to machine. And this is where the MT 733 series really comes into its own."

Accessing new markets with the 733 series

But that's not all. "We have a clear aim to break into new markets,whilst also maintaining our position on our existing markets," says the Sales Manager. "The system is ideal for ultra-precise parts requiring plenty of machining steps and the maximum number of tools – ideally with a 50/50 mix of milling and turning. This could include the basic body of cutting tools, parts for a car's fuel injection system or turbocharger, and so on." Ulmer leaves no doubt that STAMA is keen on pursuing ambitious targets: "Over the next two or three years, we want to more or less double our annual sales of the entire 7 series."

The new 733 series will be launched at the AMB trade fair – and STAMA has a convincing selling point up its sleeve to encourage potential customers to invest in the next generation of end-to-end machining systems: With the MT 733 two, the process time can be reduced by as much as 16 % in comparison to the MT 724 2C.

Complete machining – while tackling the contradiction posed by high levels of flexibility and maximum productivity: Machining across six sides and five axes at the same time with milling and turning from the bar and chuck

Precision and dynamism that's certain to impress

Live at the AMB Trade Fair in Stuttgart
September 18 – 22, 2018
Hall 10 – Stand 10A51

A vision for precision

Setting the benchmark – for productivity, precision, and flexibility. That is CHIRON's mission as they present a new generation of machine tools at AMB 2018: The FZ16 S five axis and DZ16 W machining centers for highly accurate and dynamic CNC machining.

These two machining centers certainly attracted plenty of attention during their preview at the CHIRON OPEN HOUSE event in Tuttlingen back in June. But the official world premiere of the FZ16 S five axis machine with one spindle and the DZ16 W with two spindles is set to take place between September 18 and 22 at AMB in Stuttgart, the leading trade fair for metal working in 2018. There will be live demonstrations of both machines at the CHIRON Group stand.

These two machining centers are the product of a development process that started in Fall 2015 and has always been based on the goal of launching a brand-new generation of machines that would respond to the exact requirements of customers – today and tomorrow. Extensive market analysis revealed that the three key needs within machining applications are precision, dynamism, and a high level of surface quality for increasingly complex workpieces – ranging from artificial titanium joints in the medical technology sector to steering knuckles, columns and boxes within the automotive industry, and turbine blades in the world of aviation.

Representing the project team (from left): Michael Eble (Research & Development), Patrik Schlayer (Product Management), and Reinhold Stehle (Sales)

"A brand-new generation of machines to respond to the exact requirements of customers – today and tomorrow: precision, dynamism, and a high level of surface quality."

A modular concept for application-specific configurations

One special feature of the new 16 series is the operating gantry design, which increases the rigidity significantly and thereby guarantees higher levels of precision. Thanks to their modular structure, the machining centers can be configured in line with a customer's exact requirements. Whether you opt for the five-axis machine with one or two spindles, with a ball screw drive or with linear drives in the future DYNAMIC^{+} version, with VARIOCELL UNO standard automation or as a custom solution with VARIOCELL SYSTEM, you will always end up with a system perfectly tailored to you and your needs. The machining centers can be set up differently, depending on how much space is available. Chip conveyors and coolant systems can be positioned behind them or to the side. There is also the option of adding further components, such as measuring systems, cooling units, and various NC control systems to the FZ16 S five axis and DZ16 W. Plus, CHIRON offers full packages to guarantee reduced set-up times, even more efficient operation, and services that are adapted to suit specific manufacturing settings, for example. And it goes without saying that the new FZ/DZ16 has been designed to be integrated perfectly into current and future SmartLine software modules. Optional packages with ConditionLine, DataLine, ProtectLine, and other modules can be used to make operation more productive from the word go.

A look inside the new CHIRON FZ16 S five axis

"CHIRON really has delivered the cutting performance, dynamism, and level of surface quality they promised."

Emanuele Cipolletti
CEO of Emminger Aluminium GmbH

A popular attraction at the CHIRON OPEN HOUSE event in June: The new FZ/DZ16 machine

Intuitive operation with TouchLine

The control panel comes in the form of a SmartLine module that will also be launched at the AMB trade fair: The new TouchLine operating system with 24" multi-touch screen (find out more in the article on page 12). The panel is attached to a swivel-mounted arm and the height can be adjusted electronically in line with the size and position of the person operating it. With crane loading from above via the center of the table, a reasonable loading height, and easy accessibility, there's no denying that these new machining centers are incredibly ergonomic.

Success story with trial customers

Even before the CHIRON OPEN HOUSE, the first FZ16 S five axis and DZ16 W machines were delivered. They are now ticking all the boxes as they are operated as part of a three-shift system: "CHIRON really has delivered the cutting performance and dynamism they promised. We are also delighted with the level of surface quality we are achieving" says Emanuele Cipolletti, CEO of Emminger Aluminium GmbH. Another customer accepted the system once they had seen it in action at the company event in Tuttlingen. And in this case too, the new machining center more than met their high expectations. Anybody who is potentially interested in purchasing one of the machines can commission CHIRON to perform some sample machining, with the choice between machining centers with one or two spindles in their hands.

A new factory has been set up for the new series too. As of Fall 2019, the new FZ/DZ16 machines will be produced in the CHIRON Precision Factory at the site in Neuhausen ob Eck. Dubbed the most modern machine tool factory in Europe, the levels of precision and flexibility there are unprecedented (read the article on page 37).

Boost in produ

Benefits

- Entire machining process 25 % faster
- High level of accuracy, improved quality of workpieces
- Longer service life for tools
- Savings on tools
- Built-in assistance and monitoring system
- High level of automation, designed for series production

HSK-A100 MT 838 TWIN milling and turning center with 600 mm between spindles

ctivity

Teamwork can improve precision and speed up processes by 25 % – even in the case of machines. The STAMA turnkey solution for manufacturing turbine housings has been given a real boost in productivity thanks to the combination of mechatronic tools and a milling and turning center.

The STAMA MT 838 TWIN milling and turning center is designed specifically for heavy-duty machining. With its exceptional power output and high level of dynamism, the basic design of the machine and its multifunctionality offer the scope required for the sequence and selection of optimum machining operations: Milling, turning, turning, milling, deep drilling, threading, turning, milling, drilling, and so on.

As the focus is on highly productive processes for large-scale production, the machine's stability and rigidity are suitable for heavy-duty machining with two spindles. When it comes to successfully implementing process innovations – such as extremely precise machining with two spindles and Komet U-axes – the MT 838 TWIN can deliver that extra boost of precision, stability, and dynamism required. The entire process is 25 % quicker and there are positive impacts on precision, costs per unit and ultimately productivity. Within many sectors that rely on heavy-duty machining, the MT 838 TWIN in the HSK-A100 performance class boasts all of the properties required to run production economically even when the standards are high.

To find out more about turbine housings and turbochargers, please get in touch with: Gerfried.Winkler@stama.de or Stefan.Birzle@chiron.de

KOMET KomTronic® U-axes during V-band machining with two spindles

42,000

Annual spindle hours

Whether it's metal structures in elevators, kitchens, or escalators, many of the systems we see around us every day are given the correct shape and a high-quality finish by press brake tools from WILA, based in Lochem in the Netherlands. The clamping systems for these tools are produced 24/7 in an automated production cell using six CHIRON MILL 6000 machines for fast long-bed production.

Text: Franc Coenen, Made-in-Europe

Although the city of Lochem has almost 800 years of history behind it, not to mention a number of castles and a stunning park that are well worth a visit, not many people who live outside of the Dutch Achterhoek region have heard of this small place close to the German border. This is not the case, however, within the global sheet metal processing industry, where Lochem is synonymous with WILA and WILA B.V. is synonymous with innovative press brake tools and clamping systems that ensure maximum productivity and premium quality.

Constant double-digit growth rates

For almost a decade, WILA has been clocking up growth rates of between 10–20 % each year, with around 90 % of its products making their way from Lochem to OEMs, including some well-known manufacturers. WILA relies on automation to keep up with the growing demand. When it comes to producing upper and lower beams measuring up to 5.5 meters in length for press brakes, the company goes one step further still: "We used to have a number of processing pathways through the factory with long lead times. If a machine broke down, we would experience bottlenecks along the whole chain right away," Frank Rouweler, Head of Development at WILA, explains what it used to be like and adds: "Short lead times are crucial in our market. When our customers are buying a new press brake, it is becoming increasingly common for them to leave it very late to decide which upper or lower beam they want in the press brake. This means that we need to respond quickly and flexibly, with productive manufacturing processes in place even for batch size 1."

One special feature of the CHIRON machine is the background magazine that moves with the milling spindle, allowing tools to be changed in a matter of seconds.

Fully automated production cell

In 2015, WILA started to build a new, automated production cell that could be used to process upper and lower beams 24/7 with batch size 1 and

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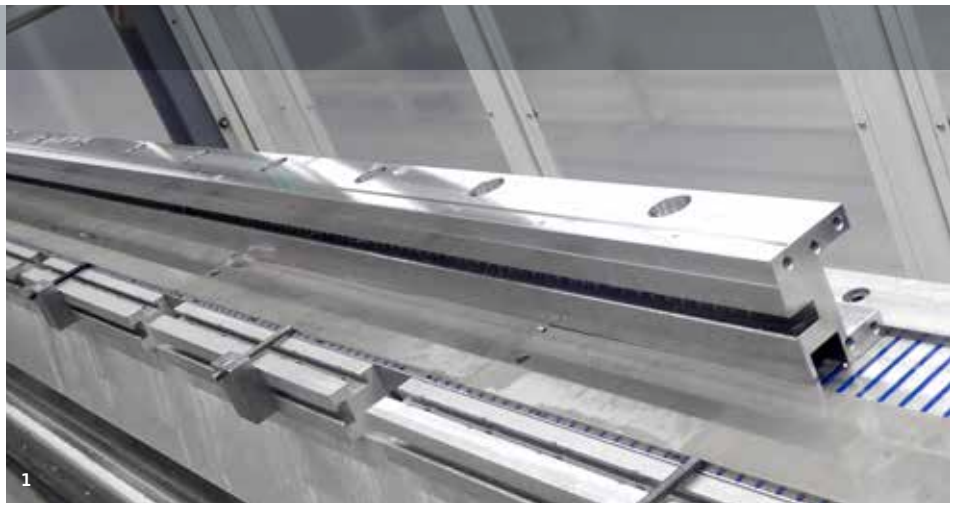
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minimum occupancy. Since then, all CNC machining has been taken care of on just one machine, with a gantry loader automatically loading all six MILL 6000 High Speed vertical machining centers. And, as Frank Rouweler points out, this brings about clear benefits: "The gantry loader, which can lift loads of up to 2500 kg, switches the hydraulically clamped clamping tool with the workpiece in two minutes and has a transportation range of 12 x 35 m."

Time savings of 10–15 %

Frank Rouweler and his team knew exactly what they wanted when they first started working on the project: "A machine that can deliver 7000 spindle hours, work quickly, and mill to the level of precision ultimately required. Provided by a manufacturer with the necessary expertise – not just with regard to machines, but also when it comes to linking machines up with software, as well as MES and cell control. And, of course, with a service organization boasting the necessary levels of efficiency. CHIRON has all that to offer." Another reason for selecting the MILL 6000 was a special feature of the CNC machine: A background magazine that moves with the milling spindle. This magazine was extended to six meters in line with WILA's requirements, allowing for tools to be switched in a matter of seconds, no matter what the position in the X-direction. Frank Rouweler: "Lots of drilling and thread cutting operations take place in the cell, with just as many tool changes. During the process for producing long, slimline products, the background magazine saves us a lot of time and doesn't require many staff resources at all. Once this is combined with the machine's dynamic properties, we are basically working 10–15 % more quickly." Not to mention that the quality is of a premium standard, with products being processed with 0.02 mm precision across the entire length of the magazine (6 meters).

Project success with plenty of involvement

The project featuring six MILL 6000 machines, the gantry loader from Güdel, and cell control software from Fastems was managed by a team at WILA, with CHIRON being represented by Danny van Rij from the Dutch sales and service partner Oude Reimer: "A partnership of this kind can only be successful if the expectations are clearly communicated to everyone from the outset. With that in mind, we had 14 people at the very first meeting." Plus, according to Frank Rouweler,

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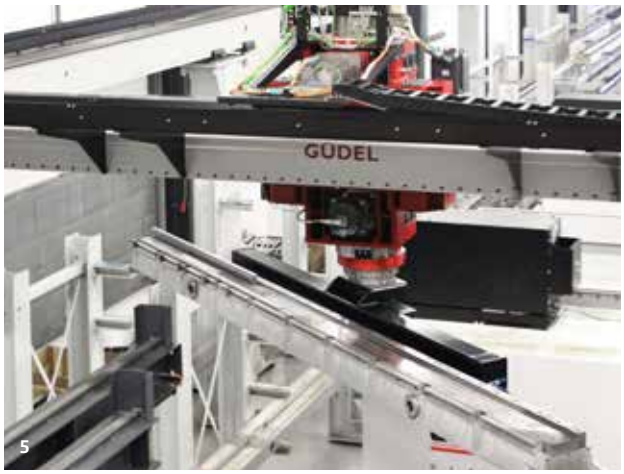

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"We are basically working 10–15 % more quickly and with extreme precision of 0.02 mm across a length of 6 meters."

6

1 Six MILL 6000 vertical machining centers from CHIRON guarantee shorter lead times and better delivery reliability.

2 WILA fully machines long beams as part of a clamping process and with batch size 1.

3 While the operator is working at one machine, the others are loaded up by the gantry loader.

4 From left: Project Manager Frank Kaemingk and Head of Development Frank Rouweler from WILA and Danny van Rij from the Dutch partner representing CHIRON.

5 The gantry loader ensures that set-up times at WILA are much quicker than if a robot were used.

6 The cell featuring six machining centers operates 24/7, with two operators on each shift.

"Trust is essential. For a cell like this one, it is important to optimize even the software processes in depth. This means that everyone involved in the project has to know what they are doing and be prepared to work closely together as a team. CHIRON demonstrates exceptional skill when it comes to automation and everyone has been able to benefit from this."

Batch size 1 and just in time

Although the goal of 42,000 spindle hours in total per year is close to being achieved, Frank Rouweler says that it is not quite there yet. "We are currently using 80% of the capacity. Before we can sign off on the full 7000 production hours for each machine, we have to know that the system is fully reliable."

The lead times, however, are already much shorter. Upper and lower beams are machined continuously and arrive for hardening and grinding just in time. The cell allows WILA to respond to customers' requests with much more flexibility. A second, identical production cell is set to be ready for operation by the end of 2018 with a view to reducing the current lead time for orders of three to four weeks even further. This will also provide a "back-up" for all eventualities.

WILA SINCE 1932

Dutch company WILA has been develop-ing and producing clamping, crowning, and tooling systems as well as accessories for cutting down the set-up time for press brakes and improving precision all over the world for over 85 years now. WILA employs more than 350 members of staff and has its own departments for research & development and production along with global sales organizations based in the Netherlands, the USA, and China.

www.wila.nl

Powerful systems in perfect balance

When centrifuges from Eppendorf GmbH are spinning 30,000 times faster than the speed of gravity to separate samples, safety is the number-one priority. STAMA mill-turn centers use fully automated five-axis end-to-end machining to ensure that the device's rotors and components are completely in balance.

Text: Helmut Damm © Werkstatt und Betrieb 6/2018, shortened version

eppendorf

One of the centrifuge models from the Eppendorf range

Eppendorf is a life sciences company that develops, manufactures, and sells systems destined for use in research laboratories across the world. Its portfolio ranges from pipettes and automatic pipetting systems, dispensers and centrifuges to consumables such as reaction vessels and pipette tips, which are used by pharmaceutical and biotechnology companies and in the chemical and food industries. At Eppendorf Zentrifugen GmbH, which is headquartered in Leipzig, a team of around 160 employees develops and manufactures a wide range of centrifuge models.

www.eppendorf.de

"Over the years, the service team has always been staffed by experts who know our machines inside out – we have complete confidence in the service." Marcel Steinbach

2010
The first turnkey STAMA machine with internal automation

2013
Further identical machines with two travel columns

2015
New system with special clamping tools for swing-out rotors

2017
Fourth STAMA system with robotic cell and Fanuc vision camera systems

Medical technology is a demanding sector with restrictive regulations to match. These regulations also apply to devices that only have indirect contact with the human body. The tens of thousands of machines that Eppendorf Zentrifugen GmbH supplies to customers across the world each year hold all of the necessary country-specific safety certifications. Whatever the machine's destination: In the event of a crash, all components must remain in the device, and the centrifuge should barely move during operation. For these reasons, the precision of the components – which run at speeds of up to 17,500 rpm and are developed and manufactured in Leipzig, alongside other core elements of the system – are our key focus.

End-to-end machining replaces sequential production methods

The Leipzig-based company's centrifuge range is currently comprised of over 100 models, which differ in two main ways: The size of sample that the centrifuge can accommodate (from 2 ml up to 1 l) and in the angle of the device during the centrifuging process. Based on a rolling forecast, the machining department produces components – including rotors, vessels and accessories – in economical batch sizes ranging from 100 to 2000 units. Tasks are completed in a strict sequence to keep costs down, so tool changeover times must be minimal to ensure maximum flexibility.

For technical and financial reasons, Eppendorf was keen to move away from sequential production, switching to single-technology machines and completing previously outsourced machining tasks in-house at a lower cost. In partnership with STAMA, the company gradually transitioned its production processes for rotors and vessels to an automated end-to-end machining process with two clamping sequences on the same machine, a two-slot MT 734 2C mill-turn center. Each working area has its own milling and turning spindle, allowing for high-precision, powerful end-to-end five-axis machining.

From raw part to finished component with an increasing degree of automation

The company now has four almost identical MT 734 2C machines on an interconnected production island, operated by two employees on each shift. In 2010, the first turnkey STAMA solution was delivered – incorporating the machine, internal automation in the form of a revolving pallet belt (i-loader), clamping equipment, NC programs and tools, all from a single source. Experiences with the system were so consistently positive that Eppendorf decided to invest in three additional STAMA solutions featuring the MT 734 2C: In 2013, the company purchased a machine of an identical design with two travel columns; in 2015, it added a system with special investment-cast stainless steel clamping devices for swing-out rotors to its collection, and last year it purchased a fourth MT 734 2C. In combination with a HandlingTech robotic cell and a Fanuc vision camera system, this allows up to 118 raw parts to be placed on the supply belt – representing an important step towards fully automated production over the weekend.

Technology drives progress

Marcel Steinbach, team manager and CNC programmer, explains the far-reaching benefits of the STAMA solutions: "On the first two machines, we use a Captex quick-changeover system from Hainbuch, which allows us to change the entire tool chuck with just one screw and a bayonet fitting – and we only need three different chucks for 125 parts. The position-based zero-point transfer of the parts

1 Working area of an MT 734 2C: The swiveling turning spindle at the bottom of the machine aligns the workpiece for five-axis machining; the tool is brought down into position vertically from above.

2 Joint efforts boost productivity and technological progress (from left): Stefan Prinz and Marcel Steinbach from Eppendorf, Gerhard Schweicker from STAMA and Steffen Weckel from Eppendorf – with the fourth MT 734 2C with robotic cell.

3 The raw parts travel on a pallet belt with positioning guides; they are supplied to the STAMA mill-turn center for end-to-end machining in exactly the right position.

4 Fixed angle rotor raw and finished part: The various versions of the forged, high-strength aluminum alloy parts produced by Eppendorf are transformed in two clamping sequences on the mill-turn centers; over 80 percent of the raw part mass eventually becomes chippings.

from the main to the opposite spindle enables us to drill all of the necessary holes in the first OP, then to mill out the gaps on the back in the second OP – while maintaining an exact wall thickness of 1.8 mm. On the mill-turn machines, we can conduct simultaneous five-axis machining on both sides, largely unaffected by interfering contours, because we can set the spindle to any angle between -30 and +90 degrees. The heavy-duty machining package gives us enough reserve power for the turning and milling spindle. Thanks to the solid construction of the machine, its fine-tuned coolant nozzles and 70 bar internal coolant supply system, we can achieve exceptionally long tool lives – in fact, we end up replacing cutting plates before they've worn out as a precautionary measure."

Marcel Steinbach is pleased with the supplier's services, too: "To enable STAMA to perform tests on our machines, we've given them access to all of our machines so that they can carry out remote servicing. Over the years, the service team has always been staffed by experts. We now have direct contacts who know our machines inside out, and get back to us within an hour if we have a service request. Over time, we've built up personal relationships with our contacts and we have complete confidence in the service."

A fully inclusive employment market

Our aim is to be a competitive player in the Swiss market with products that deliver high precision and speed: And the same is true at the industrial workshop managed by the Stiftung Balm foundation, which is staffed by people with disabilities. The latest addition to the foundation's collection of cutting-edge machinery is a FZ15 W CHIRON machining center, which allows the team to process orders 20 percent faster.

Text: Anne Richter, SCHWEIZER MASCHINENMARKT SMM

"We are a contract manufacturing company. We have to carve out a place for ourselves on the market just like all of our market peers. We have to be flexible and impress our customers – with our prices, our quality and our reliability," explains Urs Graf, who manages the Stiftung Balm industrial workshop in Jona on Lake Zurich.

The Stiftung Balm foundation focuses on providing mentoring and support for people born with a mental disability; with around 95 protected jobs, the industrial workshop is the largest department in the foundation's production and service divisions. The workshop currently works with around 40 customers and is contracted to carry out production tasks – usually assembly work – on their behalf. Depending on the type and scope of the work, some processes are automated or partially automated.

Manufacturing with cutting-edge CNC machines

Two of the eight teams in the industrial workshop work in manufacturing. Using their cutting-edge collection of CNC machines, the employees produce components in materials such as aluminum, steel and plastic, using drilling, milling, turning, sawing and pressing processes. The mechanical engineering department works with long-term partners to procure materials and provide heat treatments or other surface treatments for its components. When adding to the foundation's CNC collection, Urs Graf always looks for the latest, highest-quality systems: "We don't buy machines because they're a bargain. We only invest in fast machines that we know will reliably deliver the standards of quality that we need. Faster machines make it easier for our employees to meet production deadlines. To ensure that we can keep up with our customers' schedules, these

machines are run by our most skilled operators, who are used to the speed of each machine."

The foundation finances all of its own investments, including new CNC machines, from the profits it generates – without any financial aid from the government or other sources. "We protect the jobs of people with disabilities, but we as a company are not protected," explains Urs Graf, adding: "The standards of quality and precision and delivery reliability that customers expect from us and our components are exactly the same as for other production companies. The only difference is this: The geometries and shapes of the components manufactured here are less complex than those produced by other Swiss manufacturing suppliers. But our customers generally understand and recognize what we can do here in Jona."

"We protect the jobs of people with disabilities, but we as a company are not protected. The standards of quality and precision that customers expect from our components are exactly the same as for other production companies."

The ergonomic operating and loading concept guarantees simple operation, making this machine the perfect choice for the industrial workshop.

The core component of the FZ15 W baseline: The basket tool changer, with a changeover time of 2.1 seconds for maximum productivity

Precision manufacturing with pre-configured FZ15 W baseline

In June 2017, with all of these requirements in mind, the Balm Foundation invested in a high-precision machining center from CHIRON – a FZ15 W baseline with enormous reserves for a powerful milling performance. A unique feature of the baseline range: These machines are pre-configured as a full machining center in line with the customer's specifications, allowing contract manufacturers with tight profit margins to quickly and cost-effectively unlock new levels of production quality potential. For Stiftung Balm, the line was equipped with a rapid basket tool changer and a tool changing device for profitable three or four-axis production.

Typical components produced in the manufacturing department: High-quality parts with relatively simple geometries.

High-precision positioning and powerful performance

A core component of the FZ15 W baseline in the mechanical production processes of the industrial workshop is the basket tool changer, which can accommodate 20 tools (HSK A-63/SK 40). This in-house CHIRON innovation guarantees maximum positioning accuracy and can change tools from any position in the working area. The short changeover time of just 2.1 seconds maximizes productivity, while the work table with tool changing device allows employees to load and remove tools in parallel for efficient machining. "We needed a productive machine – and that's exactly what Ruedi Schalch from the Swiss CHIRON office offered us. The mineral-cast machine bed is strong with a high level of thermal stability, which was an important criterion for us. Less robust systems fell at the first hurdle in our evaluation process," says Urs Graf, explaining the other benefits of the system.

"Our employees need to be able to operate the machines properly and carry out all the required machining steps independently."

The FZ15 W is designed based on a vertical travel column principle and achievesin the X-Y-Z axis travel distances of 550 x 400 x 425 mm, in spite

A group photo with the new FZ15 W baseline (from left): Christian Gehb, Team Leader in the industrial workshop; Manager Urs Graf; Ruedi Schalch from Technical Advice and Sales at CHIRON Switzerland.

of its small footprint. The operating concept is ergonomically designed, which is – according to Urs Graf – yet another benefit for the industrial workshop: "Our employees need to be able to operate the machines properly and carry out all the required machining steps independently. In short: The CHIRON baseline is the perfect fit for our company's needs. The 20 percent speed advantage that we've gained with the FZ15 W compared to our previous solution gives us a huge competitive advantage. Our portfolio has to surpass that of our competitors, particularly competitors abroad. CHIRON allows us to compete for contracts here in Switzerland that would otherwise have been sent abroad."

Stiftung Balm Industriewerkstatt

Stiftung Balm is a non-profit organization. It mentors and supports people with disabilities, to help them lead independent lives. The foundation's range of programs are designed to meet the individual needs of people with disabilities. In addition to its special needs school, residential centers and supported living communities, the foundation also offers professional training and varied jobs in protected roles to people with disabilities.

www.stiftungbalm.ch

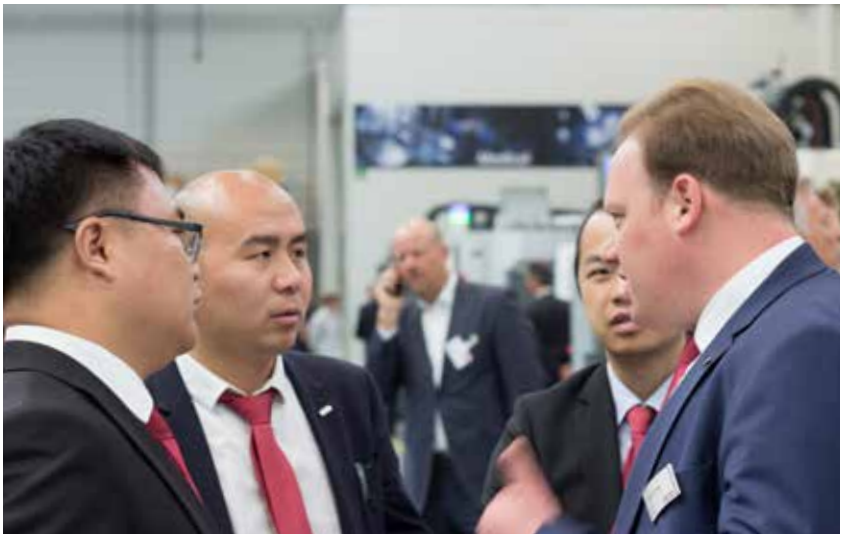
Performance meets precision

With CHIRON technologies in action, a preview of the new FZ/DZ16 machining centers, and presentations on productivity and digitalization – plus 36 other exhibitors and an event on additive manufacturing – the CHIRON OPEN HOUSE was, once again, a meeting point for CNC professionals from all over the world.

For many customers, the CHIRON OPEN HOUSE in Tuttlingen is an unmissable event and a firm fixture on their packed calendars. This year, almost 1500 specialist visitors from 25 countries attended to gain a direct insight into areas such as: The dynamism and precision of the new FZ/DZ16 in machining complex workpieces; the full spectrum of CHIRON machining solutions, presented with the help of over 40 demo machines and example customer projects; ConditionLine and ProtectLine, the latest additions to the SmartLine program; and the new TouchLine operating system and the future hot topics of medical technology and electromobility. The exhibition was completed by 36 technology partners from across the metal machining industry. The numerous presentations and the keynote talk by Frederik Klöckner, Technology Manager at KEX AG, titled "Additive manufacturing – risk or opportunity?" provided plenty of material for discussions.

Save the date

CHIRON OPEN HOUSE
May 8–10, 2019

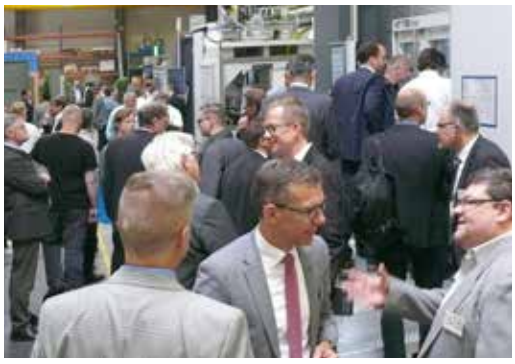


Save the date

STAMA OPEN HOUSE
May 7–9, 2019

A full house at STAMA

End-to-end and heavy-duty machining were the main themes of the pioneering exhibits presented by turnkey factory STAMA during its three-day OPEN HOUSE event, which attracted over 300 visitors. The company's preview of the new MT 733 series and its three-part presentation on end-to-end machining were major highlights of the program. The Schlierbach site also welcomed 15 technology partners, who contributed their turnkey expertise to the event. With live machining demos on the 31 and 38-series centers, the company showed visitors how precise, dynamic and stable dual spindle machining can be.



From left: Toni Driesch, representing Hoberg & Driesch, CHIRON CEO Dr. Markus Flik, Stephan Hoberg, also from Hoberg & Driesch, Tuttlingen's mayor Michael Beck and CHIRON Managing Director Wolfgang Ehrk laying the foundations at the "Take off" business park in Neuhausen ob Eck.

Foundations laid for Europe's most cutting-edge machine tool factory

On June 16th 2018, a ceremony was held to lay the foundations for the CHIRON Precision Factory at the business park in Neuhausen ob Eck. After its completion in Fall 2019, the factory will be the most up-to-date and productive machine tools factory in Europe.

Figures, dates, facts

- Total area 13,700 m²
- Production capacity 450 machines a year
- Modern workplaces for 210 employees
- Pioneering building technology
- Resource-saving energy concept
- Construction begins July 2018 Start of series production in 3rd quarter of 2019

With a total price tag of over EUR 30 million, the new build is the largest single investment in the company's history. The building is every bit as innovative as the 16 series models that will be produced at the site in large volumes from Fall 2019, which are expected to generate significant growth for the company by delivering dynamic and high-precision machining. The layout of the CHIRON Precision Factory is optimized for material flow; the machining centers are arranged in clusters. The engineers work in teams, with each team taking responsibility for its assigned machine from the start of the process through to its completion. This approach reduces the amount of handling and the throughput time, as each process and sequence is perfectly coordinated with its counterparts. The clusters also boost flexibility, with different tasks being completed on different machines and personnel being deployed where they are needed. The new plant raises the benchmark in terms of digitalization, too: Digital assistance systems replace traditional assembly folders, logistics processes are documented in contactless processes, and the quality of the new series is verified through digital checks.

The new building will boast an impressive total area of 13,700 square meters, 9000 of which will be allocated to production. An area of 2500 square meters will be occupied by logistics, while 2200 square meters will be dedicated to office space. In his speech at the ceremony where the foundations were laid, CHIRON CEO Dr. Markus Flik emphasized how important the Precision Factory would be to the continued positive development of the company: "We are planning for production capacity of 450 machines a year, and we've already got the qualified personnel and skills we need on board. We're ready to start series production in Neuhausen and we're ready to keep on growing."

From CHIRON to SCHERER to…

What kinds of development opportunities does the CHIRON Group offer its employees? How does the company recognize and develop potential? speedfactor is dedicating a new series to answering these questions and more. The series kicks off with Kristoffer Siegmann, who started out as a turnkey project manager at CHIRON and is now a sales manager at SCHERER.

Mr. Siegmann, the topic of employee development is high on the agenda at the CHIRON Group, and direct line managers have an important role to play in development, as they have the greatest influence on employee commitment and retention. What was your experience with your line manager?
When I joined CHIRON, my manager was Roger Schöpf, who constantly encouraged me, which ultimately resulted in me wanting to stay with the CHIRON Group long term. When I had been with the company for a few years as a project manager, we sat down together to talk about what I could work towards next and how to get there. That's how I made the move from project management to sales – initially as a sales engineer, then as the sales manager for the northern region at CHIRON, and then across to SCHERER as a sales manager in May 2017.

What did you learn from Roger Schöpf that you have carried with you throughout your career in the CHIRON Group?
Even though we now work in different areas – Roger is an applications manager at CHIRON and I'm a sales manager at SCHERER – I still think of him as my mentor, value his advice and follow the example he set for me in my interactions with customers and fellow employees, which was to communicate clearly and directly, and be friendly and appreciative. We should always be ready to listen to what our customers and colleagues have to say.

A management role in sales is not a nine-to-five role and certainly has its challenges. How do you recharge your batteries?
I enjoy my sales manager role; no two days are ever the same. I'm also really motivated to make a difference. I want to provide the best possible advice and service to our customers. If I keep all of this in mind, it's easier to cope with the tiring days. In my free time, I'm an active member of a tennis club. Playing tennis is something I've been doing for years to burn off energy and clear my mind.

Curriculum vitae

Kristoffer Siegmann graduated with a degree in business economy, specializing in production management. After starting his career at Vogtland GmbH, he spent seven years as a project manager at CHIRON, leading major projects all over the world. He then moved on to the position of sales engineer, a role in which he was responsible for looking after customers in Bavaria, the Czech Republic and Hungary. He later became the sales manager for the northern Germany region, with responsibility for his departmental budget and a team of 15 people, before moving across to SCHERER as a sales manager in May 2017.

Career highlights

2005

CHIRON Project Manager for Key Accounts

2012

CHIRON Sales Engineer for Bavaria and Eastern Europe

Are there any similarities between Kristoffer Siegmann as a tennis player and Kristoffer Siegmann as a SCHERER sales manager?
Of course! In my personal life and my sporting endeavors, I'm very much the same person as I am at work. I'm always just myself. In tennis, I prefer playing doubles – you have to agree on a match strategy and give the other player room to play to their strengths. I think of working with my team in the same way. And, just like in tennis, practice makes perfect at work too. It's important to me to make sure that new employees are properly integrated into the team and to find out how I can support them. I also appreciate the fresh perspective that you often get from new "players".

What are your objectives for the near future? What do you want to achieve at SCHERER?
That's an easy one: I want order volumes to keep rising and even more satisfied customers! To manage the increasing order volumes, we're expanding our sales team and working hard to boost productivity, which is one of the strategic objectives of the CHIRON Group. To achieve this, we're establishing clearly defined and standardized processes to enable us to process inquiries and orders even faster and more effectively in the future.

2015

Sales Manager
CHIRON North Germany

05/2017

Sales Manager
SCHERER

Legal notice

Publisher	CHIRON Group SE
Editorial management	Alice Reger CHIRON Werke GmbH & Co. KG
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Translation	STAR Deutschland GmbH 71063 Sindelfingen
Printing	braun druck & medien GmbH 78532 Tuttlingen
Frequency of publication	Twice a year in German and English
Total circulation	21,000 copies
Editorial address	CHIRON Group SE Kreuzstraße 75 78532 Tuttlingen Phone +49 (0) 7461 940-3325, kommunikation@chiron.de

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