

# 360°

The elumatec AG magazine

## SBZ 122 - „To suit every need and budget“

With the SBZ 122 profile machining centre, elumatec has successfully navigated an exceptional generation change: The new models offer a higher level of benefit with lower space and energy requirements, and they can be adapted to suit customers' differing needs and budgets thanks to their modular design. Dieter Grau, Team Leader for Mechanical Design, and Achim Schaller, who is responsible for Software Development, present the essential new features below.



What you will also find in this issue:



**04** **elumatec TechDays 2015**  
Review



**07** **Trade fairs in review**  
Batimat, Big 5, Fenestration China



**08** **elumatec After Sales**  
„Taking precautions prevents additional costs“



**14** **Anwenderbericht**  
Wilken GmbH



**15** **Swissbau 2016**

---

## Foreword

---



Dear customers, business partners and friends of the elumatec Group,

We are already in our second year as the elumatec AG and are experiencing great success. The main contributors are new products, such as our groundbreaking SBZ 628 or the SBZ 122 family of models. It embodies the new elumatec philosophy perfectly: Align solutions even more closely with the needs of our worldwide users. Thanks to a redesign, the machine now has a modular structure and can be adapted to suit various different requirements. Moreover, it offers enhanced machining capacity on a minimized footprint. Components such as intelligent control systems, regulated spindles, a modern inclined bed and powerful servo motors save operating costs and make machining aluminium, PVC and steel profiles even more precise, ergonomic and efficient. In other words, the stage is set to continue the success story of the extremely popular predecessor model with its well over 1,000 installations.

A success story can also be told by our customer of many years, the Wilken GmbH company from northern Germany. This specialist for conservatory construction has been growing steadily for years and has always relied on the latest elumatec technology in the aluminium and PVC areas. One reason for this: The high level of flexibility, precision and automation afforded by the machining centres, especially when processing custom and angled elements, enable the company to produce more with the same staff and thereby react quickly at peak times.

We have reorganized our After Sales area in order to better support our customers such as the Wilken company in their businesses. Shortened reaction times and comprehensive services contribute to maximizing machine availability. Moreover, we are also working intensely on further development projects. For our customers, this means they can also look forward to interesting new products in 2016 as well. The trade fairs Swissbau in Switzerland, Polyclose in Belgium and FENSTERBAU FRONTALE in Nuremberg offer opportunities for getting acquainted.

I would also like to take advantage of this occasion to once again thank all of our TechDays visitors as well as everyone who was involved. Thanks to your participation and each one's commitment, the event was a smashing success.

I wish you a blessed Christmas season and all the best for 2016!

*P. Happel*



**eluntec TechDays 2015**  
23 - 25. September / Mühlacker

Herzlich Willkommen  
**Welcome** Вітання

Vitkominen. Bienvenue **Witkun**  
Bienvenue. Bienvenu

Bien-venue. **Witkommen** Dobro došli  
dobro pozhalovat' / dobro pozhalovat'

Has gollalaz. Vitejte  
**Dobrodshi** 欢迎

Istán hozott. **Bine aji venit**  
Tavotuloo. 환영

**Добре дошли / Dobro doshii**  
مرحبا

Vitejte

---

## elumatec TechDays enthuse visitors with innovations and information

---

More than 800 visitors from all over the world transformed the elumatec company headquarters in Mühlacker into an international hotspot for professional profile machining for three entire days. They became acquainted with the newest solutions from the areas of machines, software and services “live” and learned a great deal of useful information on how to carry out their work even more efficiently and successfully.



International visitors were greeted by giant banners in their respective languages that reached up to the third floor of the main building making them visible from a great distance. Customers even travelled from Alaska, China and South America. And a Turkish delegation came to the TechDays in spite of an important holiday to experience elumatec in the spirit of the event's motto “Stronger and closer than ever before.” No one wanted to miss the premiere of the elumatec user days, which was received with enthusiasm. After all, it offered an opportunity to discover new potentials for increasing productivity and profitability in the context of live demonstrations, practical examples, factory tours, and in-depth conversations with engineering and applications specialists.

“The trend is moving towards increasing complexity in products and shorter delivery times. This requires not only highly efficient machines, but also complete solutions that suit the job structure optimally,” explains Ralf Haspel, Head of Sales and Marketing. “With the TechDays event, we sought to deliver answers for our customers and to stimulate thought.” There was an abundance of inspiration and information. elumatec had transformed the two info centres and the production area as well as the showrooms, tent pavilions and special areas that were set up expressly for the TechDays into a giant knowledge platform which participants were able to make use of in line with their own personal agendas.

### Customer-oriented innovations for a competitive edge

The key highlights elumatec presented included several new products at the same time: the SBZ 628 pass-through centre, two models from the re-designed SBZ 122 series and a concept study for a new “DG 202” double mitre saw. “These are proof that the individual needs of customers are reflected in our products even more quickly now,” states Mr. Haspel. During a factory tour, customers were able to experience the SBZ 628 live for the first time after it caused quite a stir during its video premiere at BAU 2015 in Munich. Two internal cameras even gave them views of the machine's centrepiece: the rotation module equipped with eight milling spindles which can be turned. By rotating about an entire profile, it machines them effortlessly from all sides before the 4-axis saw unit with 360 degree pivoting subsequently finishes up with length cutting or adds notches to the profile.

Equipped with power-driven clamps and a combination clamp system for stationary and on-the-fly machining, the SBZ 628 is an impressive and exceptionally flexible all-rounder that covers a broad range of configurations with no setup changes



or cost-intensive intermediate steps. “Customers are able to tailor their pass-through centre in terms of equipment and length to precisely suit their needs. As a result, we begin manufacturing according to the desired specifications only after we have received the order,” explains Michael Dehm, Deputy Head of Technical Sales. Assembly, including the subsequent quality testing, typically takes eight weeks.

However, one visitor was unwilling to wait that long for an SBZ 628. A short while later, there was a small sign hanging on the demo machine with the word “Sold” on it.

### **Large vertical range of manufacture shortens reaction times**

Over 400 employees work at the elumatec main headquarters in Mühlacker, of which more than 200 are active in production. The strength of the staff allows a very great vertical range of manufacture, and thus high quality and quick reaction times as well. For example, elumatec produces the motors for the various saws and routers themselves. “We can manufacture every country-specific variant with the required voltage for the local power network within three days,” emphasizes Karlheinz Mannhardt, head mechanical production. Moreover, the in-house research and development team implements new market requirements to create innovations which ensure a market advantage. Current examples of this are the new 3 and 4-axis centres from the SBZ 122 series, which enjoyed great acclaim among the visitors. The machine bed inclined at 45 degrees, the enlarged work area in spite of a smaller overall footprint as well as the height-adjustable control unit all simplify operation. A modern control system, regulated drive spindles and powerful servo motors support precision handling and make workflows faster as well as more reliable and efficient (see the article on page 4).

### **PVC production line and premiere for automatic corner cleaner**

The crowds thronged into the PVC showroom to find out how to meet tight deadlines even for complex jobs. One option is parallel machining, which the brand new SBZ 122 for house doors handles perfectly. The 3-axis centre machines the stationary profile bar including inserted steel reinforcement with an angle head from five sides – all in a single operation. The downstream centre, SBZ 609, also shortens manufacturing times by simultaneously performing screwing tasks for reinforcement as well as drilling and routing tasks using up to 22 router/drilling spindles. Another magnet for visitors was the production line presented in cooperation with partner Stürtz, which automates everything from length cutting to profile machining and on to hardware mounting. The system can produce 150 window units in a single shift – at the press of a button. “This makes the newest Turbo Line generation 30 percent more productive on the same footprint,” underscores Elmar Zech, Technical Account Manager at Stürtz. Armin Dangel, PVC Product Manager at elumatec, sums up with satisfaction: “After a very successful start into our partnership, we were able to demonstrate the added value for customers very concretely at the TechDays.” One result of this working relationship is the broad portfolio of solutions which covers the full range of needs from a



craftsman’s business to industrial manufacturers and which is undergoing continuous expansion. The most recent innovation: an automatic corner cleaner for transom joints and outside corners (TXR 3-2) which celebrated its market unveiling at the TechDays.

### **Valuable tips and services for high machine availability**

Visitors received useful practical tips at the After Sales information stand. “We are not only there for our customers in emergency situations, but also support them over the entire life cycle of their elumatec machine so that they can obtain maximum performance,” explained André Gwosdek, Head of After Sales, referring to the comprehensive range of services offered. His team provided valuable information on proper maintenance and care of milling spindles, among other things. A simulation made it clear just how important it is to use machine components that are in perfect condition for everyday operation. It shows the damaging effects of vibration, such as can be caused by unbalanced tools, on the function and service life of router spindles.

### **A broader perspective pays off**

Also very popular were the numerous live demonstrations and presentations by notable partner firms from the areas of software and machine technology. Ruchser presented clever solutions that save time and simplify work. First and foremost here was the RU-AH-T with a telescoping transport mechanism which performed amazing feats in the SBZ 628 pass-through centre. Functioning as a “second man,” it enabled Michael Dehm from elumatec’s Technical Sales department to place a six-metre long aluminium bar into the magazine of “his” SBZ using only one finger. Casadei demonstrated to visitors that many tasks can be performed more ergonomically and with a smaller space requirement when done vertically. Vertical machining stations simplify the machining of large aluminium composite panels which are used as cassettes for rear-ventilated curtain walls.

With a three-roll roll-bending machine, the Swiss PBT Profilbiegetechnik company demonstrated that it is also possible to form profiles to the desired shape when they are cold – automatically and cost-effectively while being easy on the material.

### From heavy metal to bits and bytes

A must-see on many visitors' agenda was the stand of the elumatec subsidiary, elusoft. The eluCad software allows fast and user-friendly creation of programs for profile machining on elumatec machines. Functions such as 3D or CSV import make data available directly from commercially available design software so that it can be used to create control programs, such as for manufacturing small parts or curtain wall components that are similar. Another plus are the many



additional features which increase productivity, such as “bar optimization” for minimizing cutting waste or “clamp management” which shortens working cycles as well as the interfaces to external calculation or CAD systems that are steadily gaining importance.

The specialists from CAMåleon provided fascinating insights into the PUMA system for demanding profile machining challenges. For example, visitors were able to observe the handling of plunge cutting on an SBZ 151: Reciprocating plunge cutting down to the target depth prevents the formation of extreme cutting forces during milling, which protects the milling cutters and spindle bearings. CAMåleon also demonstrated the programming of a 5-axis centre for machining a curved industrial part.

### Door opener for metal construction 4.0

With LogiKal® 10, Orgadata presented a groundbreaking release of their estimating and design software for window, door and curtain wall manufacturing. “With this emphasis on networked production, we are opening the door to metal construction 4.0 for companies,” explained Orgadata Sales

Manager, Matthias Willberg. He demonstrated just how much added value networked processes offer by initiating machining steps on an SBZ from elumatec with a single mouse click in LogiKal®. The information required for this is provided by a database which contains all of the relevant intermediate products with their dimensions and technical details, such as striking plates or push handles from more than 100 profile manufacturers. As soon as the user enters a workpiece, LogiKal® automatically determines all machining tasks, for example for hardware or notches, and sends them to the profile machining centre. The new information server provides the necessary processing transparency and efficiency. It provides the workshop with designs and jobs by sending only those machining tasks to each work station that are to be processed there – including the rules which must be observed and a display of the current state of processing. Assignment by means of the push principle prevents manufacturing steps from being overlooked and ensures that the sequence is optimized.

However, before processing can begin, precision planning is required. The experts from Klaes presented the Klaes 3D software for exactly this purpose. It allows designs for conservatories or complex curtain walls to be acquired quickly and easily with no CAD knowledge whatsoever. The program creates a photorealistic design model based on the imported CAD wire-frame model and derives the cuts and design elements from this. If there are construction changes, Klaes modifies the 3D cuts in real time; for a changed roof pitch, for example, the mitre angle and the compound mitre cuts. The program even calculates the production lists for the materials used at the press of a button. “Whether software or machine technology, our partners’ products provide further leverage for increasing value creation and efficiency,” emphasizes elumatec board member, Mr. Haspel.

### Overwhelming feedback

The board was entirely satisfied with the event: “The numerous conversations with our users demonstrated that, as the world market leader, our portfolio of machines, services and supplementary software and hardware products puts us in a position to respond effectively to their needs. The unanimous feedback from customers confirmed that it was wonderful to be able to obtain comprehensive information at a single location about solutions and possibilities for attaining an even more successful market position in the future – all in a no-pressure atmosphere.” Due to the overwhelming success, elumatec is already considering repeating the event. So keep your eyes open and look forward to an invitation from company headquarters in Lomersheim for the next TechDays.

---

## Trade fairs in review

---



**BATIMAT 2015, Paris, France** - Investments are up once again!

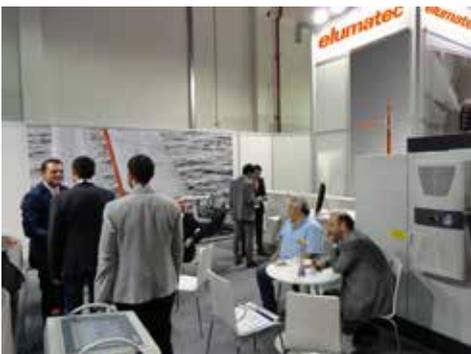
If the BATIMAT trade fair which took place in Paris from 2 - 6 November is any indicator for the economy, than investments are on the rise once again. The comments made by Yvon Wirz, Managing Director of elumatec France, after the close of the construction trade fair are characterized by a note of relief: "At last, no one was talking about the economic crisis any longer. Customers are looking towards the future once again." The positive atmosphere of expectancy was reflected in the new

contacts that were gained: Numbering over 200, there were twice as many as two years previously.

Visitor magnets at the 150 square metre trade fair booth were the brand new SBZ 122/71 profile machining centre for metal construction companies and the SBZ 628 pass-through centre. The 3-axis centre from the SBZ 122 model series made a strong statement in the entry-level segment with its inclined bed, regulated spindle and new enclosure. The SBZ 628 was presented on a video wall. Visitors were able to experience the advantages of the 22 metre long pass-through centre live, including the infeed, the rotating machining module with up to eight freely positionable tools, the sawing station and the outfeed. The DG 244 double mitre saw, the EP 124 corner crimper and the AF 223 end milling machine as well as the software from eluCAD which allows machining programs for elumatec profile machining centres to be created quickly and easily, all enjoyed great attention as well. The Single Line from elumatec partner, Stürtz, aroused great interest in the area of PVC, as it combines fully automatic welding and cleaning operations. "Numerous customers came to us with projects and enquiries in the areas of aluminium and even PVC, which had suffered significantly during the crisis," summed up Yvon Wirz with pleasure at the success of the BATIMAT exhibit.

**The Big 5, Dubai (United Arab Emirates)** - Very successful despite turbulent times

The Big 5 lived up to its reputation as the largest construction machinery trade fair in the Middle East once again this year from 23 to 26 November. In spite of geopolitical turbulence in the region and falling oil prices which means less money in coffers, an



impressive number of visiting professionals streamed into the Dubai World Trade Center. "Our booth was very busy with visitors and their interest in the machines on display was very strong," reports Ayman Droubi, General Manager of elumatec Middle East. Especially the new control system on the DG 142 double mitre saw was very well received. Moreover, both the SBZ 140 and 122 profile machining centres, which provide increased precision and productivity with automation, drew attention. "We were able to establish new and promising business contacts to companies from the Middle East, India, Pakistan and North Africa," says Droubi. However, it is also time to say farewell. The Big 5 is to be replaced by the new and eagerly awaited trade fair "Doors, Windows and Curtain Walls" which will premiere in September 2016 and in which elumatec is a "Founding Partner".

**Fenestration in Shanghai, China** - Green building as a motor for growth

"Our participation was a complete success. The customers were truly enthused about our solutions," reports Robin Lian, Director of elumatec Asia. The reason: the machines elumatec displayed hit the mark with the professionals who visited the top international trade fair which took place from 11 to 14 November and focused on the topic of green building with an emphasis on windows, doors and curtain walls. The highlight at the elumatec booth was the new SBZ 628 pass-through centre that is able to machine even challenging profiles from all sides and at any angle between 0 and 360 degrees with precision. The knowledgeable audience also demonstrated great interest in elumatec partner Casadei Industria (Alu Bender and Alu Ranger) as well as in various small machines from the elumatec product portfolio. "We are very satisfied. Not only the quantity of visitors was very good, but so was the quality," says Mr. Lian in summary.

---

## Taking precautions prevents additional costs

---

The After Sales area has also been reorganized since the relaunch of elumatec as a joint stock company. The objective: To provide customers with even better support to avoid downtimes. André Gwosdek, Head of After Sales, explains what has taken place so far and how this benefits customers.



**Mr. Gwosdek, you took on your position as Head of After Sales two years ago. Since then, you have reorganized the area and expanded the services offered. In what way is elumatec now better able to serve customers?**

**Mr. Gwosdek:** We have oriented our After Sales Service so that we are able to support customers as effectively as possible during every phase of the machine's service life and with every type of concern they may have. When someone invests in a machine from the world market leader, they deserve first-class service after the purchase as well. Consequently, we have combined the areas of spare parts, service technicians, repair service and the hotline to form a single entity under the umbrella of After Sales. This provides customers with the advantage that they now have only one contact point for all of their concerns regarding service matters. In addition, they benefit from faster reaction times because the processes within the service organization have become more streamlined. For example, this internal networking means that service technicians have faster access to spare parts and are able to have them on site in no time.

**And what has changed in the range of services that is intended to help customers increase their level of machine availability?**

**Mr. Gwosdek:** A company's performance and thus profitability depend to a great extent on the machines being completely dependable, especially when high demands are made on them, sometimes even including operation 24-hours a day. We offer preventive maintenance in order to avoid machine breakdowns.

**How does that work?**

**Mr. Gwosdek:** It's essentially an inspection. A service technician checks over the machine thoroughly at a time set up by appointment with the customer. He inspects all of the components, from the pneumatic system, the mechanics, electronics system and on to the software, using a comprehensive checklist designed for the specific machine. In addition, he performs adjustments and trial runs to assess the dimensional reliability and accuracy and to determine whether any unusual noises might indicate a malfunction. We recommend that a maintenance call should be performed every 1,000 operating hours. For a machine in 24/7 operation, that would represent up to three maintenance calls every year.

**How long does the maintenance take and what is the best way to schedule it in?**

**Mr. Gwosdek:** You should plan on four hours for a small saw and 16 hours for a large pass-through centre such as the SBZ

151. The customer can schedule the maintenance call for times when the machine is not needed in production, such as during a holiday closure or when the capacity utilization is low. We remind customers well in advance of pending maintenance work so that they have enough latitude to find the best possible time.

#### **Who can benefit from this kind of early detection?**

**Mr. Gwosdek:** For our industrial customers, this kind of preventive maintenance is a matter of course. They are completely dependent on maximized machine availability and stable production conditions. They understand that our service technicians know the machines like the back of their hands and have a trained eye so they are able to recognize wear as it begins or which anomalies have the potential to cause problems in the near future. This early detection gives them an adequate time buffer to avoid a sudden loss of production capacity.

#### **What about companies with a craftsman orientation?**

**Mr. Gwosdek:** Unfortunately, many only react when a malfunction has already occurred. The typical reason for this is that they rely exclusively on their own personnel and therefore have a false sense of security. Even a trained maintenance employee does not have the same level of expertise as one of our service technicians who are trained continuously and do nothing else but maintain elumatec machines day in and day out.

#### **But preventive maintenance also costs money. Why does a contract like this pay off – especially, in fact, for older machines?**

**Mr. Gwosdek:** If an unexpected malfunction occurs, it can become expensive very quickly. For one thing, this is because when a malfunction occurs during active operations, the damage to the machine is often more severe. The time required for repairs depends on the extent of the damage, and this can result in late deliveries and troubles with the end customer. Preventive maintenance saves the company troubles of this nature as well as unnecessarily increased costs. Moreover, maintenance agreement customers are also given a discount on spare and accessory parts.

#### **How can companies take precautions on their own?**

**Mr. Gwosdek:** Every company should have qualified employees who are able to properly maintain and care for the machine based on the instructions in the operating manual. This includes checking the oil and lubrication levels every day on start-up as well as carrying out simple visual inspections.

If this is not done, relatively small things can quickly lead to significant damage to the machine, which causes downtimes. In light of this, we offer practical training sessions for customers' employees on how to perform the standard range of maintenance tasks as described in the operating manual on their own.

#### **And what sort of services are offered if there is a malfunction?**

**Mr. Gwosdek:** A technical expert connects to the machine via the Internet using the remote service feature. For machines that are a bit older, initial help is provided by telephone. The range of possible causes for the problem is narrowed down using questions and the customer is guided through the problem resolution process step by step. If the malfunction cannot be remedied either by remote service or by telephone, then we send a service technician to the customer on short notice. Beyond this, we also offer additional services, such as extended telephone availability of our service team until 8 p.m. instead of 5 p.m. or individual spare parts kits

#### **You already mentioned error handling via remote service. The important hot topic of Service 4.0 goes even one step further in that machines “talk” to each other to trigger automated processes. What potential do you see in this technology and what projects are you pursuing?**

**Mr. Gwosdek:** Put simply, the basic idea behind Service 4.0 is to make machines so intelligent using sensors, chips and barcodes that they are able to initiate a service call or a spare part order on their own, for example, or can generate an error diagnosis in the event of a malfunction. The potential for future-oriented services with a high level of benefit for elumatec customers is enormous. Consequently, we are already working very intensely on various projects. However, it is too early to say much more on this at the moment.

#### **Perfect support in every detail**

- Service hotline including telephone support
- Fault elimination by a service technician
- New installations
- Support for large-scale projects
- Original spare parts
- Repair service
- Preventive maintenance
- Retrofitting
- Training (e.g. maintenance)
- Uniform standards worldwide

---

## SBZ 122 - “To suit every need and budget”

---

With the SBZ 122 profile machining centre, elumatec has successfully navigated an exceptional generation change: The new models offer a higher level of benefit with lower space and energy requirements, and they can be adapted to suit customers' differing needs and budgets thanks to their modular design. Dieter Grau, Team Leader for Mechanical Design, and Achim Schaller, who is responsible for Software Development, present the essential new features below.



**With more than 1,000 installations, the previous SBZ 122 was an exceptionally successful entry-level machine for processing aluminium, PVC and steel profiles. Why did you decide on a completely new design utilizing the form of a family of models?**

**Mr. Schaller:** Because this allows us to meet the diverse needs of users better. The SBZ 122 was conceived as an entry-level machine, but the applications vary quite strongly in this segment as well, as do the budgets available in companies. Originally, the SBZ 122 was aimed at small metal-construction companies. However, because of its reliability and its breadth of machining options, it became established in further user segments. These encompass small businesses that produce 20 windows per week on up to vendor companies that manufacture a multitude of small parts in two-shift operation.

**How many models are planned overall?**

**Mr. Schaller:** Six. We were already able to present two 3-axis centres at the elumatec TechDays. The SBZ 122/70 is the basic model which, in terms of the range of functions and price, is positioned below the predecessor version. The SBZ 122/71 is the direct successor with its gearing towards the demands

of metal construction companies. The SBZ 122/72 addresses industrial customers as a more stable and more powerful version. We will be presenting a further model for the first time at FENSTERBAU FRONTALE, which takes place in March 2016 in Nuremberg.

**That means that one model is even priced below the previous SBZ 122?**

**Mr. Grau:** Yes. But accordingly, it also has fewer functions. It is delivered without an angle head. Our value analysis, which included appraisal of the wishes and experiences reported by users, indicated: that's enough for some customers. There is a market for this.

In all of the other models, 5-sided machining with one clamping operation is possible with an angle head.

**One design requirement was to increase the level of benefit while remaining in the same price segment. How did you manage that without compromising on quality at some point?**

**Mr. Grau:** Through the redesign, including reworking the design of components. For example, the new clamps are narrower and have greater stiffness. Overall, the number of components in the machine has gone down by one half; in the machine bed, the figure is even 70 percent less. This leads to improved stability even at high rates of travel. This, in turn, allowed us to once again improve the precision and process reliability in machining. Consequently, all of the SBZ 122 models use a platform that has consistently higher quality and which, thanks to its compact dimensioning, can be installed at the customer's site within a very short time.

**Mr. Schaller:** It was the redesign that gave us the latitude to employ intelligent configuration to conceive models perfectly matched to the diverse user requirements in terms of performance, range of functions and budget. The modular concept is used throughout many areas so that the user is able to



„The new model will be ready for viewing in the plant after its unveiling at Fensterbau Frontale 2016.“

Could you please explain how the intelligent control technology ensures quality and energy efficiency?

**Mr. Schaller:** Because the control system and regulators now exchange information more quickly, the motors can be loaded much more heavily to achieve the best machining result in dependence on the requirement and the tool. To do this, for every tool, such as drill, disk cutter or router, the regulator retrieves the optimal parameter set for the drive control. Put simply for the screw tap: It does not need a high speed, but instead requires more power in the lower speed range. The result of this new control technology is very good efficiency, which means that only the amount of energy is supplied that the drive can effectively deliver.

choose the exact option that provides the greatest benefit. One example is the enclosure which replaces the hood on the routing unit. The new protective enclosure is available with an open rear and top, completely enclosed or with additional noise abatement materials.

**Was that also the key to being able to expand the working range while simultaneously reducing the space requirements?**

**Mr. Grau:** The new enclosure concept makes the light barriers obsolete. This reduces the footprint by one third, which is of special benefit to small companies with limited space. At the same time, the machining area was enlarged to 300 mm x 300 mm so that larger profiles can now also be machined. Especially in the area of windows, profiles have been growing wider all the time due to the thermal insulation. A further advantage: Elimination of the chip protection has made the routing unit lighter and it can travel faster.

**To what extent have machining times been reduced?**

**Mr. Schaller:** By 20%. The new drive technology and the more powerful motors have also made a contribution. The servo axes now operate at twice the speed. The X-axis achieves speeds of 120 m/min and the other two reach 60 m/min. The increased clock rate allows the controller to react with even more sensitivity now. This enables faster positioning of the spindles, which are RPM regulated. Only the energy that is required for the machining task is supplied to the spindle, regardless of its rated power. This results in energy savings of between 25 and 30 percent. Furthermore, the intelligent control technology ensures an extremely high degree of consistency in speed, which in turn produces very good machining quality, even with quickly changing loading.



**And how do you support an ergonomic work style for the user?**

**Mr. Grau:** In the design, we emphasized good accessibility of all essential components. A unique new feature is the “inclined bed” of the machine. Swarf automatically falls off thanks to its 45° incline, making cleaning easier. Moreover, the operator can step very close to the machine table when positioning profiles, providing a working position right next to the part. Greater ergonomics and an improved overview are



also afforded by the elimination of the hood on the routing unit. Additional convenience is delivered by the height-adjustable control unit that accommodates different body sizes. It is mounted on the safety hood and replaces the previous separate control PC.

**Mr. Schaller:** We also improved the operator guidance by tailoring it for the different applications. As is the case with all elumatec systems, the machine is controlled via the intuitive and understandable eci (elumatec customer interface) graphic interface with its convenient touch functions.

**What is the new operator guidance system like?**

**Mr. Schaller:** It is now available in three different versions. In the basic version for the SBZ 122/70, assistants guide the operator step by step through the input menu. All of the values are checked by the setup assistant for plausibility, which can significantly reduce the number of input errors. This also reduces the amount of training required and increases safety. The next level up is oriented toward companies that wish to perform more complex machining operations with their SBZ

122. Consequently, manual input is possible and all special input fields, such as for helical machining, are available. A final plausibility check avoids faulty operation here as well. The “Professional” level offers the most input versatility and freedom. For example, the operator can have the clamp positions calculated automatically so that the clamps can then be manually adjusted to the required position with precision. A 3D preview and time calculation are also available optionally.

**The machine now operates twice as fast. Can the speed be reduced if need be?**

**Mr. Grau:** Yes, the operator can switch over to setup mode or can control the speed using a regulator on the hand-held control panel. Certain activities, such as initial profile measurement, can even be carried out with the hood open in reduced-speed mode (process observation). This mode simplifies tasks, but it must be confirmed once more using a special switch in the interest of safety.

**Where can customers view the new SBZ 122 models?**

**Mr. Grau:** The SBZ 122/70 and 71 are ready and available for demonstration purposes in the Info Center here at the headquarters in Mühlacker. The new model will be ready for viewing in the plant after its unveiling at Fensterbau Frontale 2016.





### A modular family of models for various needs

The SBZ 122 models machine aluminium and PVC profiles as well as steel (wall thickness is dependent on the material). There is a range of equipment and options so that users can choose the exact machine that suits their specific needs.

- SBZ 122/70 – Lower-priced basic model: Includes manual clamp positioning and tapping with a compensation chuck
- SBZ 122/71 – Variant for metal construction customers: Includes automatic clamp positioning, tapping without a compensation chuck
- SBZ 122/72 – Variant for industrial customers: Includes autonomous clamp positioning, linear guides for the clamps, tapping without a compensation chuck
- World premiere at FENSTERBAU FRONTALE – 4-axis machining with adjustable spindle.

### Highlights

- One third less setup space
- Enlarged working area of 300 mm x 300 mm
- Power consumption reduced by up to 30 percent
- Processing times reduced by up to 20 percent
- Inclined bed at 45 degrees with high degree of stiffness
- Narrower yet stiffer clamps
- Structure designed for high rates of travel
- Machine installation within a very short period of time

### Configuration

- Stationary tool magazine with 4 positions, optional flexible expansion to include additional tool magazines for a total of up to 20 positions.
- 4 clamps as standard. Expandable to up to 8 (16) clamps on machines with 4,000 mm (8,000mm) machining length.
- Material reference stop for positioning workpieces; optionally expandable
- Options including multi-spindle boring heads, vacuum tables or other accessories are also available.

---

## Wilken shows growth with conservatory construction and elumatec

---

The East Frisian company “Wilken GmbH - Elemente & Wintergartenbau” is on the top rung in Germany – geographically and businesswise. Their recipe for success? Versatile and flexible production that offers customers everything they need for PVC and aluminium from a single source – and with the very best in technology.



Wilken GmbH situated in the city of Wiesmoor near the Lower Saxon North Sea coast specializes in conservatory construction and has an unparalleled history. The 40-man operation offers their own systems, such as roofs, doors and windows: “The sum total of our know-how gained over 18 years in the business is poured into these products,” says managing director Klaus Wilken.

This market advantage is complemented by versatile and flexible production which is able to implement challenging, individual customer requirements as well as the high-quality system portfolio with bravura. “We provide our customers with everything they need from a single source, whether in PVC or

aluminium,” says Mr. Wilken, explaining the consistent growth over recent years. Undoubtedly, this is also due to the high technical standards employed in production: For years, the company has sworn by the machining centres of the Swabian world market leader, elumatec. “We always rely on the latest technology from elumatec because it is always one step ahead of the rest of the market,” reports Mr. Wilken.

When the company came up against their capacity limits and enlarged the production floor space with the construction of an additional building, the businessman took advantage of the opportunity to update the machine park and equipment. The PVC sector now makes use of the SBZ 616 and the new SBZ 617, which replaces the SBZ 607. The SBZ 616 is

an automatic saw optimized for window, door and curtain wall manufacturing. The SBZ 617, as a downstream centre, rounds out the automated complete machining, which ranges from PVC length cutting to PVC machining with or without reinforcement steel and reinforcement screw placement as well as with or without transom notches, right on to weld-ready profile bars.

Both of these machining centres are characterized by a high degree of flexibility. For example, the SBZ 616 can perform saw cuts at continuously adjustable angles of from  $-22.5^\circ$  to  $+22.5^\circ$ . With the high volume of custom and angled elements amounting to around 50 percent, this allows parts to be produced considerably more rapidly. "We can increase our throughput with the same level of personnel, enabling us to react quickly during peak times," says Mr. Wilken. All drilled holes and routed features fit together with precision, thereby guaranteeing the consistent, high quality of Wilken products. "The diverse range of options for tool use is a great advantage. Having this high level of flexibility with an automated system is truly unique. It shows that machines from elumatec AG are the right choice time and again," states Mr. Wilken. And in keeping with this, the businessman also invested in a new pass-through centre from elumatec for the aluminium sector as well. Here, an SBZ 628 is replacing

an SBZ 630. Just like the SBZ 617 in the PVC area, it has a rotation module for flexible tool usage. What's more, its versatility with no need to modify the setup sets new standards in aluminium machining.

All elumatec machines are supplied with the machining data such as dimensions and technical details via the LogiKal® software from Orgadata AG. Based on this information, they carry out saw cuts and machining tasks fully automatically. This means that Wilken is already in a position today to utilize the efficiency advantages of networked production. An even more comprehensive melding of automated manufacturing with the digital world: That is one of the goals that motivates the far-sighted businessman Mr. Wilken – and which he intends to attain by employing technology "made by elumatec."

WILKEN GMBH  
Elemente & Wintergartenbau  
Am Dobben 16  
D-26639 Wiesmoor  
Tel.: +49 (0) 49 44-920 280 0  
Fax: +49 (0) 49 44-920 280 99  
[www.wilken-wiesmoor.de](http://www.wilken-wiesmoor.de)

---

## Save the date: Swissbau from 12 to 16 January 2016

---



"Quality does not always have to be expensive"

elumatec is featuring this slogan for their appearance at the Swissbau trade fair in Basel, which, with over 100,000 visitors and about 1,100 exhibitors, is among the largest construction trade fairs in Europe. As proof of the slogan, elumatec is presenting the new SBZ 122/71, among other products. The model series with its modular design clears the way for companies in metal and window construction to enter the world of automated profile machining. It can be adapted flexibly to suit the needs of users and provides an impressive level of benefit for its class of investment. The ability to carry out a diverse range of computer-controlled machining tasks in a very small space increases not only the speed, but also process reliability and economy. In addition, the TS 161 table saw and the DG 244 double mitre saw as well as solutions from our partners PBT and Ruchser will be presented.

But elumatec offers more than "just" high-quality machines. "As a partner for the metal construction industry, we advise and support our customers in areas ranging from process planning to the complete equipping of production facilities," explains Mark Hess, Managing Director of elumatec Swiss AG. Visitors can obtain information at the trade fair booth about options and services offered by elumatec that improve the production chain and shorten pass-through times. This includes the use of complementary solutions, such as for assembly and logistics. "Stop by for a visit and get to know our formula for success first hand: first class engineering + solid consulting = higher productivity!" says Mark Hess.

Picture source: «MCH Trade Swiss (Basel) AG»



elumatec inside.

The elumatec AG wishes you a Merry Christmas and a Happy New Year!

---

## A preview of the next issue

---

The upcoming issue will show how customers are using the SBZ 628 pass-through centre to enhance their business success. Moreover, we will be reporting on the FENSTERBAU FRONTALE 2016 trade fair in Nuremberg and also plan to present the most important new products which we hope will once again generate enthusiasm amongst readers. The elumatec board will also give an exclusive interview providing insights on how the elumatec AG has changed since its successful relaunch two years ago as well as on what is in store for customers in the future.

---

### MASTHEAD

Many thanks to all of our colleagues who contributed to this issue.

#### Publisher:

##### elumatec AG

Ralf Haspel, Head of Sales and Marketing  
Pinacher Straße 61  
75417 Mühlacker

Tel. +49 7041 14-0  
Fax: +49 7041 14-280  
mail@elumatec.com  
www.elumatec.com

#### Project management:

Zeynep Temiz,  
Head of Marketing and Communication

#### Area of circulation:

Worldwide

#### Languages:

German, English, French, Dutch, Polish, Portuguese, Russian, Spanish, Turkish.

elumatec 360° is a complementary magazine for customers, interested parties, partners and employees of elumatec AG.

The content of articles does not necessarily represent the publisher's opinion. All rights reserved. Reprinting or electronic distribution permitted only with the publisher's consent.